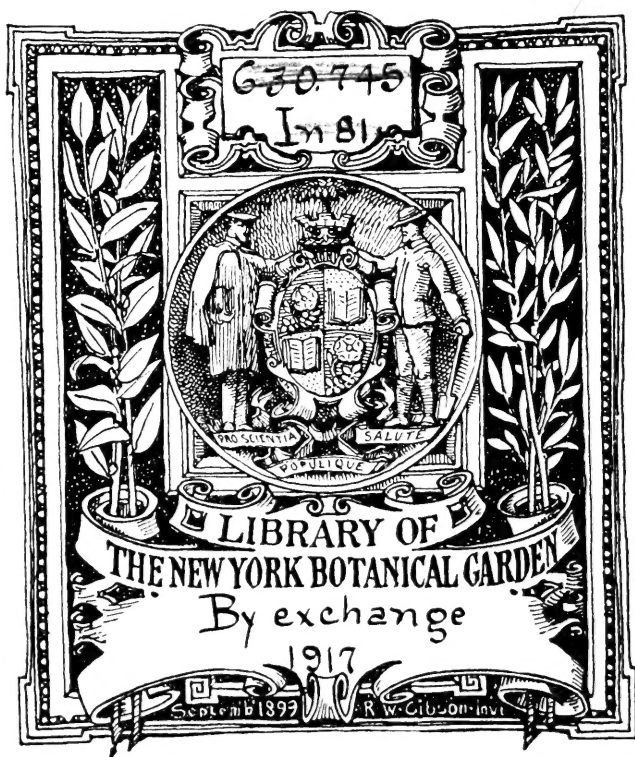
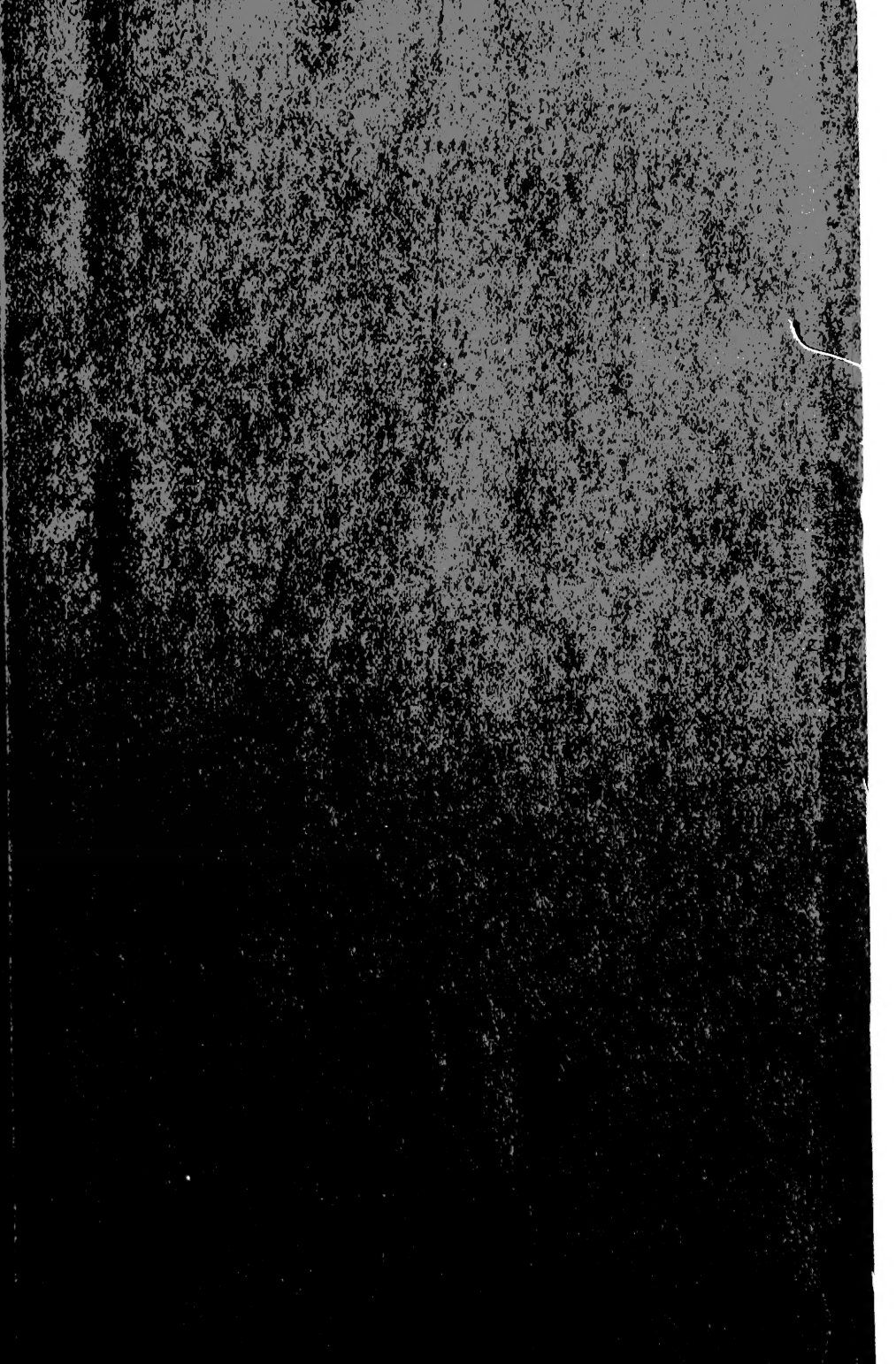


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INTERNATIONAL INSTITUTE OF AGRICULTURE

BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN OF ECONOMIC
AND SOCIAL INTELLIGENCE)

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THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Sixteen other governments have since adhered to the Institute.

It is a government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance, and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilising for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

MAR 17 1919

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EXPLANATORY NOTE

1. *The present Table of Contents refers to the twelve numbers of the International Review of Agricultural Economics published from January to December, 1917, and includes, therefore, all the articles and notes dealing with co-operation, insurance, credit and agricultural economy in general contained in these volumes.*

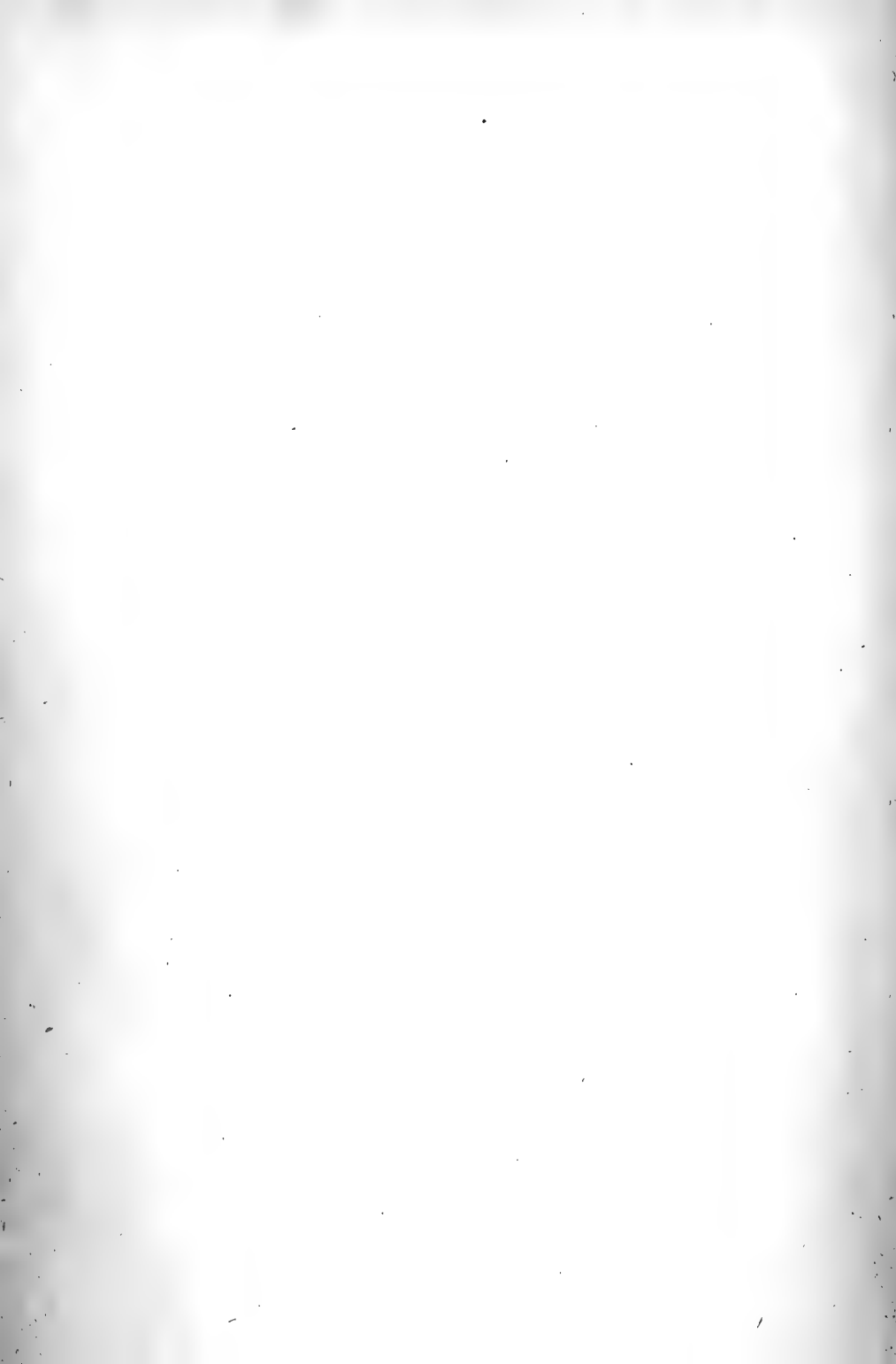
2. *The articles and notes relating to co-operation have been grouped in 2 classes; those dealing with insurance are divided into 1 classes; those which deal with credit into 1 classes; and those which treat of agricultural economy in general into 17. A complete list of these classes precedes the table. In our classification we have followed the rule of single entry and placed under only one heading those articles and notes which, from the nature of the subject treated, might appear in more than one group.*

As it is not in every case clear why an article or note has been assigned to one group rather than to another, the reader must be prepared to refer to the several analogous groups in any one of which a particular article or note might appear. A dairymen's co-operative society, for example, might have as its object the protection of the general economic interests of dairy farmers as a class, or simply the improvement of the methods of production, transport, and sale, or again the purchase and collective use of animals of the special dairy type. An article relating to such a society might appear under various headings, according as it dealt more particularly with one or other of these objects.

3. *In each group the articles and notes have been subdivided by countries, following the alphabetical order. For each country the articles are arranged in the chronological order in which they were published. We have added a table giving the classification by countries.*



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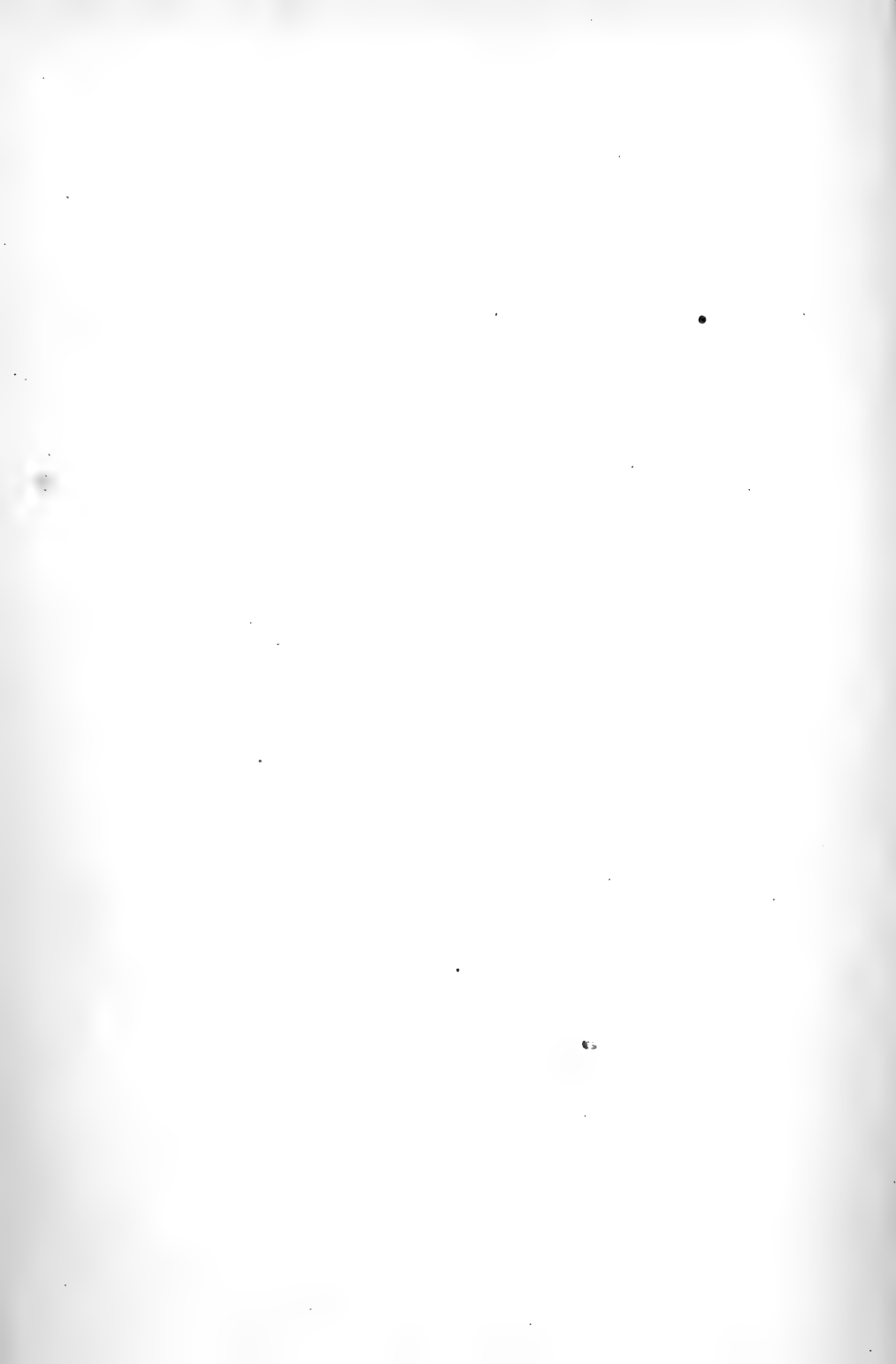
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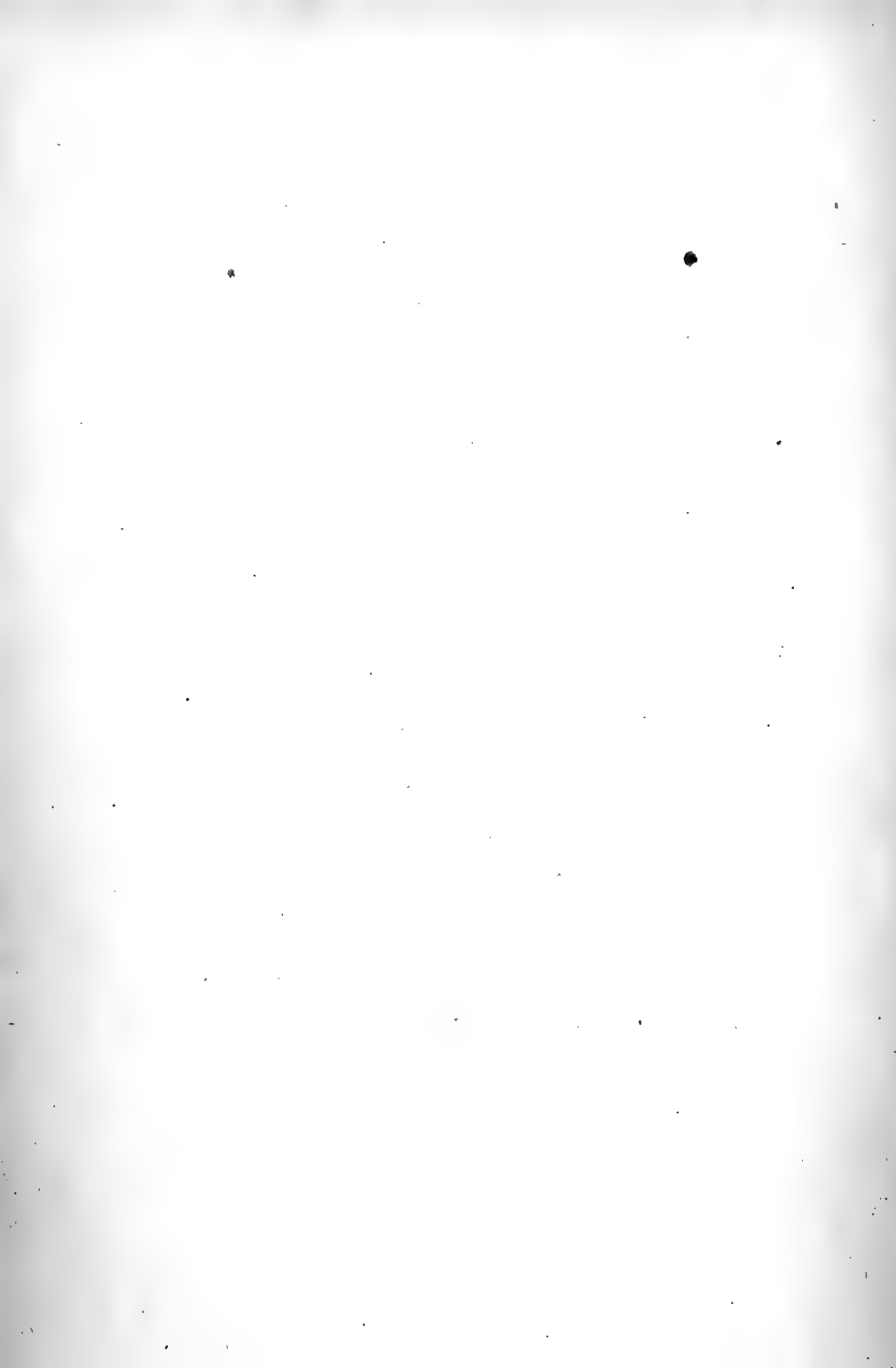
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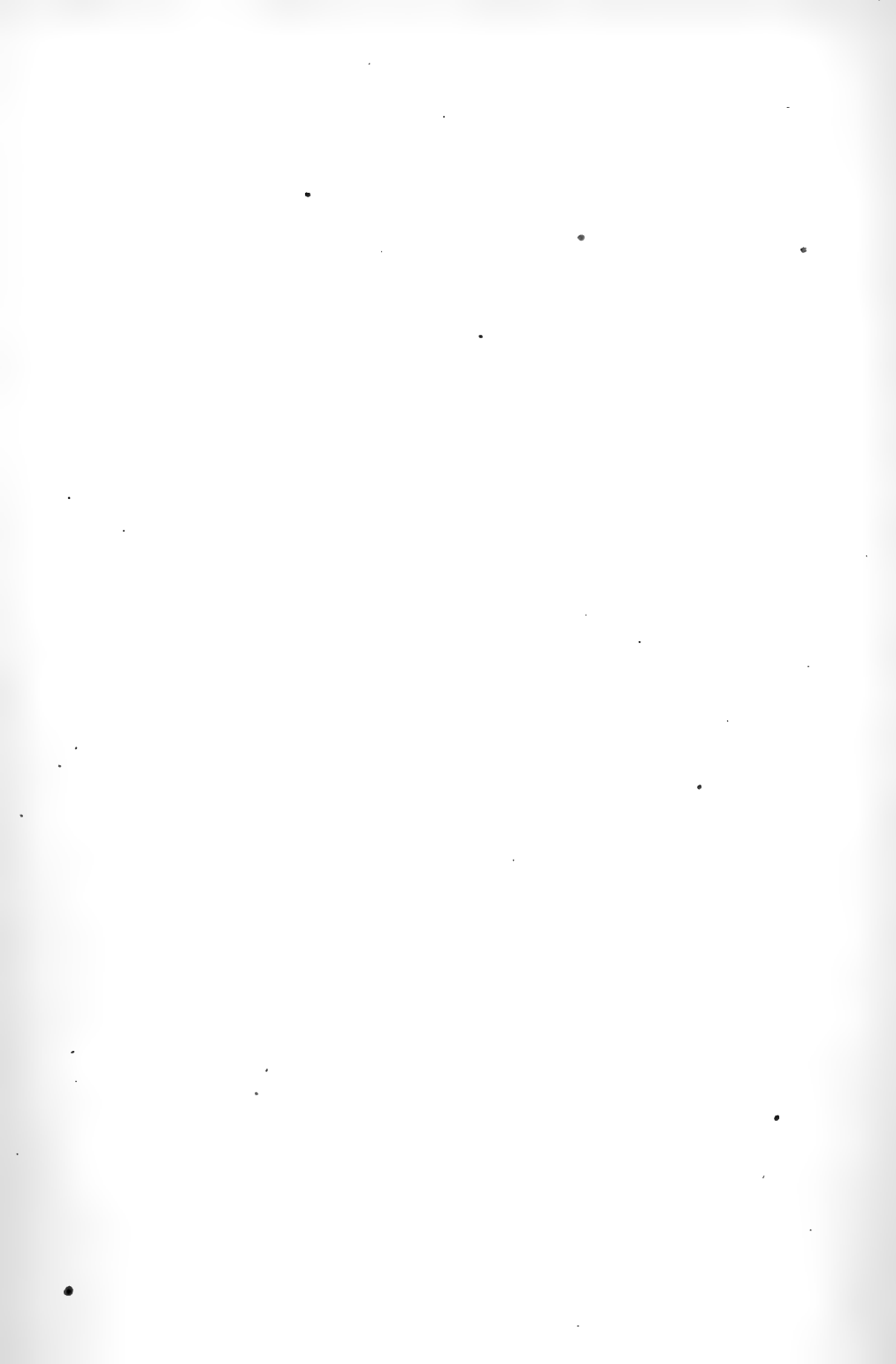
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4. LE MARCHÉ DES CÉRÉALES DE ROTTERDAM (The Rotterdam Corn Market) (1918, 83 pages 8vo, 10 diagrams.) Frs. 3.—
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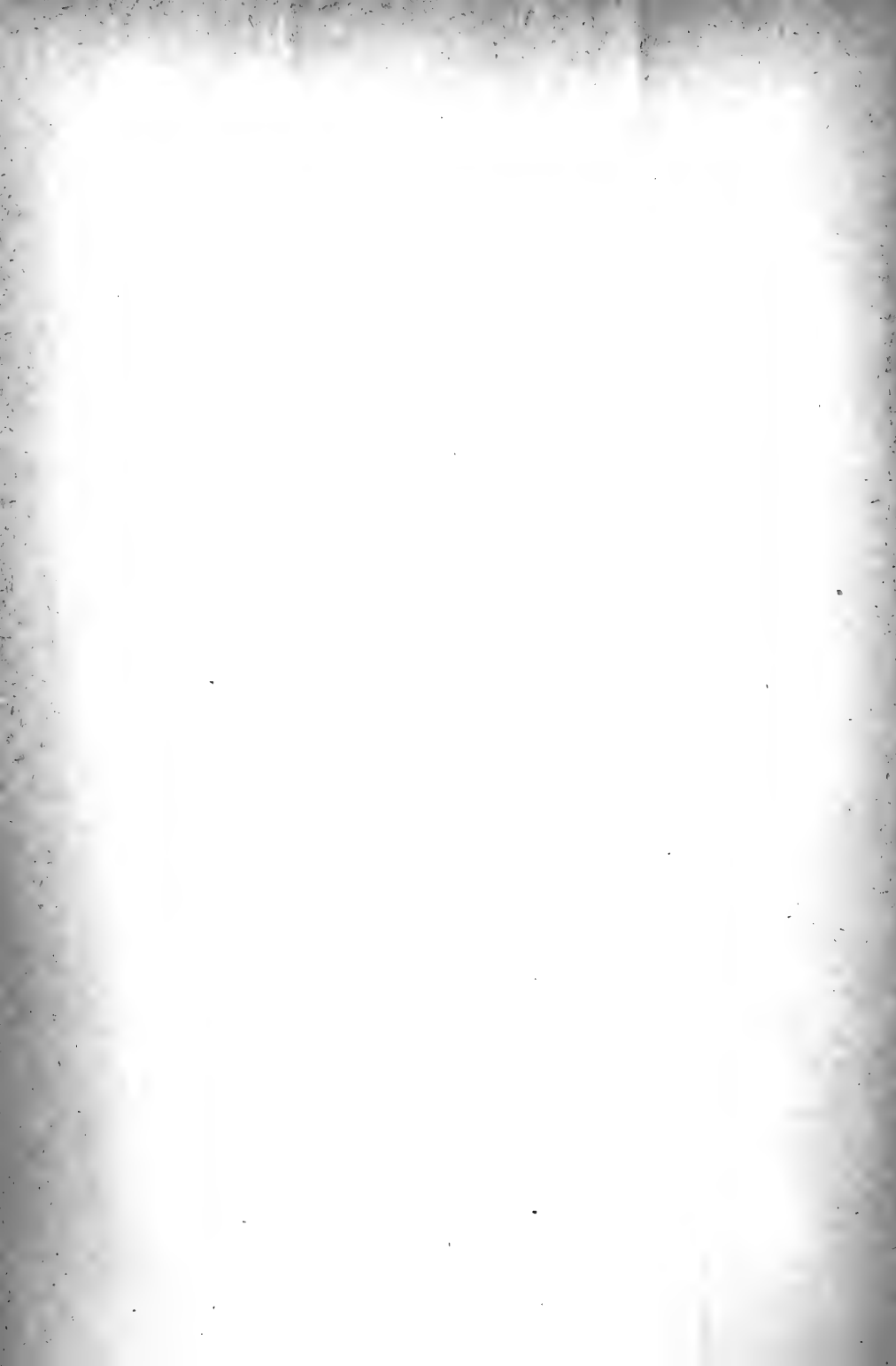
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Part I: Co-operation and Association

GERMANY.

AGRICULTURAL CO-OPERATION

IN THE KINGDOM OF SAXONY 1 JULY 1914 TO 30 JUNE 1915.

SOURCE :

BERICHT ÜBER DAS VIERUNDZWANZIGSTE GESCHÄFTSJAHR 1914-15 DES VERBANDES DER LAND-
WIRTSCHAFTLICHEN GENOSSENSCHAFTEN IM KÖNIGREICH SACHSEN, EINGETRAGENER
VEREIN (*Report on the twenty-fourth year of activity, 1914-15, of the Federation of Agricul-
tural Co-operative Societies in the Kingdom of Saxony, a Registered Union*).

§ 1. GENERAL REMARKS.

The Federation of Agricultural Co-operative Societies in the Kingdom of Saxony comprised 499 societies on 30 June 1914, namely :

- 2 central co-operative societies.
- 79 collective loan and savings banks.
- 242 savings, credit and purchase unions.
- 75 co-operative sale and purchase societies.
- 20 collective dairies.
- 6 co-operative societies for the essication of potatoes.
- 23 co-operative pasturage societies.
- 27 co-operative water-supply societies.
- 11 co-operative corn-threshing societies.
- 14 other co-operative societies.

499 co-operative societies comprising 34,779 members.

As regards the Provincial Co-operative Bank (*Landesgenossenschaftskasse*) it is noteworthy that in spite of the difficulties of the year the management were able to obtain a balance of 133,994 marks (1) on its business. If the amount of expenses and of dues for registering the by-laws, as well as bills worth 33,931 marks, be deducted, there remains a credit balance of 41,549 marks.

The balance-sheet shows the total sum of deposits by co-operative societies to have been 11,084,424 marks as against 7,658,306 marks in the preceding year. The debts of co-operative societies amounted, on the other hand, to 2,738,276 marks as against 3,461,308 in the previous year.

The turnover was 136,212,182 marks in 1913-1914 as against 170,860,995 marks in 1914-1915.

During the year under review the Central Agricultural Co-operative Society (*Landwirtschaftliche Zentralgenossenschaft*) considerably increased its trade in cereals, dealing with 462,712 zentners (2) of the value of 4,645,949 marks, as against 313,525 zentners and 2,660,716 marks in the previous year. In round figures therefore the increase was one of 150,000 zentners. Altogether this central co-operative society dealt with 3,359,046 zentners of the value of 16,289,767 marks as against 3,249,182 zentners of the value of 14,033,613 marks in 1913-1914. The general increase was therefore one of 109,864 zentners and 2,256,154 marks, that is of 3.38 per cent. as regards quantity and of 16 per cent. as regards value.

The balance-sheet shows a net profit of 76,114 marks as against 72,252 marks in the preceding year. This central co-operative society has resources of its own of the value of 571,446 marks. Of the 499 co-operative societies which belonged at the end of 1914 to the federation 357, or 71.6 per cent., belonged to this central co-operative society. Besides the Provincial Co-operative Bank and the central institute 321 co-operative societies had part, as in the previous year, in circulating the money.

As a consequence of the considerable increase of savings deposits many co-operatives societies reduced the rate of interest on these on 1 January 1915. Others on the other hand established a balance by subscribing largely to the war loan.

In the year under review 335 co-operative societies took part in operations for the *purchase of merchandise*, the purchases being distributed among the various types of societies as follows:

	Purchase of Merchandise	
	Zentners	Marks
75 societies for purchase and sale, properly so called	2,382,815	10,624,463
37 collective savings and loan banks . .	518,987	1,968,682
220 savings, credit and purchase societies.	2,536,888	10,301,019
3 other co-operative societies	188,631	977,440
Total	5,627,321	23,871,604

(1) 1 mark of gold = about 11 ³/₄ d. at par.

(2) 1 Zentner = 110.236 lbs.

The share of the Agricultural Central Co-operative Society is 2,896,334 zentners and 11,643,818 marks ; and a comparison shows that 51 per cent. of the merchandise bought by the co-operative societies belonged to it. It is therefore evident that Saxon co-operative societies still derive a large portion of the merchandise they use from dealers.

Two hundred co-operative societies traded in cereals, namely :

	Zentners	Marks
46 co-operative purchase and sale societies, properly so called.	1,036,879	8,712,934
13 collective savings and loan banks	115,491	1,142,148
140 savings, credit & purchase associations . .	431,584	4,110,318
1 co-operative mill	31,278	267,964
Total	1,615,232	14,233,364

The *collective dairies*, the *pasturage* and the *corn-threshing co-operative societies* showed good results at the end of the year ; but the *co-operative societies for the essication of potatoes* had, on the other hand, to struggle against grave difficulties.

§ 2. STATISTICS OF AGRICULTURAL CO-OPERATION IN SAXONY.

As regards more particularly the *statistics of agricultural co-operation* in Saxony we report as follows :

a) *Collective Savings and Loan Banks.* — In 1914-1915 the collective savings and loan banks numbered seventy-nine and they included 6,836 members. The total turnover of these societies was in this year 53,015,426 marks, net profits amounted to 117,143 marks, the loans granted to 10,342,056 marks, and deposits to 17,391,398 marks.

The turnover was more by 3,923,062 marks than in the preceding year, which gives an average increase of 33,141 marks for one society.

The loans represent 53.4 per cent. of the general property of the co-operative societies. As compared with the preceding year they had increased by 338,851 marks.

If the average for single societies and single members be calculated the following results are obtained :

Districts	Loans		Average for a co-operative society		Average for a member	
	1914	1913	1914	1913	1914	1913
Bautzen	6,399,198	6,129,413	164,082	152,036	1,538	1,498
Chemnitz	590,360	593,488	84,337	84,784	1,081	1,150
Dresden	1,169,097	73,069	73,069	74,503	1,096	1,143
Leipzig	1,991,426	142,245	142,245	158,901	2,114	2,235
Zwickau	191,975	63,992	63,992	60,482	1,587	1,463
Kingdom of Saxony 1914	10,342,056	—	130,912	—	1,513	—
» » » 1913	—	10,003,205	—	129,912	—	1,509

b) Savings and Credit Societies and Societies for the Purchase of Merchandise. — This important group includes 242 co-operative societies having 13,889 members, and a total turnover of 133,523,109 marks — which gives an average of 9,614 marks for one society —, profits amounting to 256,288 marks, and deposits amounting to 19,746,969 marks — which gives an increase of three and a third millions on the preceding year.

The average deposits of each co-operative society, member and saver in each circle are, respectively, as follows :

	Bautzen	Chemnitz	Dresden	Leipzig	Zwickau	Kingdom
For a co-operative society.	88,895	49,968	60,516	171,392	47,072	81,559
For a member.	1,419	1,205	1,234	1,919	896	1,278
» » saver.	606	520	499	977	569	644

The greater part of the sums received were converted into loans, 8,182,719 marks being lent for fixed terms and 1,385,010 marks on current account. In addition merchandise to the value of 4,887,056 marks was delivered.

The net profits amounted to 276,396 marks as against 249,675 marks in the preceding year.

d) Co-operative Purchase and Sale Societies. — Of the seventy-five co-operative societies which belong to this group, forty-five have furnished financial data relative to the year from 1 July 1913 to 30 June 1914, the others data for 1914-1915.

These seventy-five co-operative societies had 6,562 members and a total turnover of 129,041,380 marks, which gives an average of 19,665 marks for one society. The value of the merchandise issuing from them was 19,111,237 marks and their profits amounted to 124,522 marks.

Their total circulating funds amounted to 6,019,645 marks.

e) Co-operative Pasturage Societies. — The twenty-two federated co-operative societies derived 144,320 marks from pasture dues and 38,246

marks from other sources during the year. Administrative expenses amounted to 99,221 marks and interest on borrowed capital to 43,793 marks. The net profits of nineteen societies were 18,169 marks and three societies closed their books showing a loss of 1,866 marks. The land and real estate of eighteen societies represented at the end of 1914 a value of 1,054,698 marks, while four societies rented their pasture land. At the same date the estimated value of the shelters on the pastures was 99,319 marks. The total turnover was 766,028 marks as against 832,538 marks in the preceding year.

Besides having their own circulating funds these co-operative societies have received help from the State, to the extent of 307,733 marks lent on pasture land exclusively and more than 661,864 marks lent on mortgages.

f) *Collective Dairies.* — During the year under review the collective dairies numbered 1,202 members, as against 1,164 in the previous year, and their turnover amounted to 75,880,973 marks as against 72,797,585 marks in the preceding year. The members furnished 72,729,741 kilogrammes (1) of milk and received 7,296,815 marks. The average price paid for a kilogramme of milk was 13.33 pfennigs (2). Receipts from the products of the cheese industry amounted to 11,363,178 marks as against 10,981,601 marks in the previous year.

g) *Co-operative Societies for the Essication of Potatoes.* — The following data have reference only to five of the six co-operative societies for the essication of potatoes which belong to the Saxon federation, and they concern the year from 1 July 1913 to 30 June 1914. The members numbered 996, the total turnover amounted to 3,316,746 marks and the receipts to 30,019 marks. Lands and buildings represented a value of 369,529 marks and machines one of 257,999 marks. The societies' own combined capital surpassed 300,000 marks; they used 232,835 marks of capital belonging to others, and from the State they received 143,000 marks on mortgages and 72,200 marks in loans.

h) *Other Co-operative Societies.* — The results of the year under review do not differ much from those of the preceding year in the case of the co-operative societies providing a water-supply, those undertaking the essication of corn, the co-operative mills, etc.

Those concerned with the supply of water numbered twenty-six, namely three more than in the preceding year, and comprised 1,166 members.

Those concerned with the essication of corn numbered eleven and comprised 167 members. There were fourteen other co-operative societies having different aims and numbering 1854 members. The turnover of these fourteen amounted to 17,452,437 marks, their profits to about 56,000 marks.

(1) 1 kilogramme = 2.205 lbs.

(2) 1 pfennig = 0.01 mark.

SPAIN.

THE ASSOCIATION OF THE AGRICULTURISTS OF SPAIN AND ITS WORK.

SOURCES:

NUEVO REGLAMENTO DE LA ASOCIACIÓN DE AGRICULTORES DE ESPAÑA, APROBADA EN LA JUNTA GENERAL EXTRAORDINARIA DE 15 DE MARZO DE 1912 (*New Rules of the Association of Agriculturists of Spain, approved at the extraordinary general meeting of 15 March 1912*) Imprenta de la sucesora de M. Minusa de los Rios, Madrid, 1912.

BOLETÍN DE LA ASOCIACIÓN DE AGRICULTORES DE ESPAÑA (*Bulletin of the Association of Agriculturists of Spain*) Years 1912-1916, Madrid.

The Association of Agriculturists of Spain is perhaps, in virtue of its age and its organization, the most important institution of its kind in rural Spain. It was formed in Madrid in 1881, that is to say before the law of 1887 on associations, which gave an impulse to the movement for association in this country, was promulgated. In spite of the many obstacles which it had to overcome, in order to reach its goal, the example and the propaganda of the Association of Agriculturists caused the formation of numerous agricultural groups which were the forerunners of the existing agricultural institutions. It need not therefore astonish us that it aspired to the leadership of the social organization of Spanish agriculture, that it desired to regulate the progress and direct the efforts of this movement.

One of the chief merits of this institution is that it has endeavoured to adapt its organization to the new exigencies of rural development, and thus has been able to found for its members such enterprises as the existing credit fund and the mutual institution for insurance against hail which will soon become active. It contains therefore a promise which justifies a short description of its organization and chief activities.

§ 1. THE ORGANIZATION OF THE ASSOCIATION.

The objects of the Association of the Agriculturists of Spain are, according to its rules, *a*) to defend and protect the rights and interests of rural producers; *b*) to extend the relations and the union existing among individuals of this class, as among agricultural institutions; *c*) to encourage the

development and progress of agricultural production in all its forms, by means of competitions, exhibitions, lectures, publications and all available methods of propaganda and instruction; *d*) to bring about and to facilitate the formation of co-operative societies for the purchase of manures, seeds, machines and foods for live stock, and for the sale and conversion of agricultural products; *e*) to found or help the foundation of co-operative agriculturists' credit institutions, institutions of mutual agricultural insurance, and other institutions tending to improve the intellectual, moral and technical equipment of the rural classes; *f*) to furnish the State, the province and the commune with all required social and agricultural information.

The members of this association belong to five classes: there are original members, subscribing members, collective members, protective and honorary members.

The original members are those who pay an entrance fee of 25 pesetas (1) and a monthly subscription of 2.50 pesetas.

The subscribing members are those who pay 1.50 pesetas a month if they live in Madrid, one peseta if they live in the country.

The collective members are the institutions who pay a monthly subscription of 1.50 pesetas if they do not comprise more than a hundred members, and add 0.25 pesetas to their subscription for every sixty or fraction of sixty members additional to a hundred they comprise, until they reach the limit of five pesetas which is the maximum subscription for a society, whatever be its membership. Collective members who are grouped pay a subscription equivalent to the sum of their individual subscriptions or a sum as to which there has been a common agreement.

Persons who have made donations to the association of at least 500 pesetas may be nominated honorary members, as may any who have rendered the association a distinguished service.

Only an application for membership and the consent of the association's council are necessary to admission (2). All members, to whatever class they belong, have the same rights and obligations.

The members have a right to the association's support in any appeal they make to the central, provincial or municipal administration, if such appeal be recognized as well founded and as consistent with the general interests of agriculture. They may buy the seeds, plants, animals and machines and all the other agricultural wares with which the association is

(1) 1 peseta + $9\frac{3}{5}$ d. at par.

(2) At present the association has 742 members, distributed as follows: 2 protective members, 68 honorary members, 50 original members, 450 subscribing members and 100 collective members. Among the collective members are some important institutions, as the *Sindicato de Policía rural* of Calera which has 2,321 members, the *Fomento agrícola de Andalucía* which has 2,900 members, the *Comunidad de Labradores* of Villalcar which has 4,578 members, the federations of the Catholic agricultural syndicates of La Rioja and Palencia which comprise, respectively, 113 and 110 syndicates, and others.

supplied in their interest, at the most advantageous prices possible ; may avail themselves of all the association's existing and future enterprise; may freely receive all the publications issued by the association at its own cost, unless the council decide to place on these a price, which shall be as near as possible to cost price ; and finally they may use the association's reading-room and library.

Members are obliged to pay the subscription incident in the class to which they belong. If they neglect to do so three times successively they will be considered to have resigned but will still be liable for the omitted subscriptions. They are further obliged to discharge all commissions and trusts confided to them, unless they have a justifiable excuse for not fulfilling this duty.

Single and collective members and the groups of these may, if they live in the same district or province, unite to form an affiliated delegation of the society which will forward the local social and agricultural interests. With this aim such delegations will be able to found workmen's clubs which will possess libraries and reading-rooms, and will do all that is possible to strengthen the comradeship of their members, to facilitate the exchange of ideas and to disseminate useful knowledge. These delegations will moreover give an impulse to the formation of local agronomic laboratories and museums, with the official help of other and analogous institutions. They are finally the connecting link between the members and the association at Madrid, to which they should remit a report of their work every three years.

The association's property is constituted by the members' subscriptions, by donations and by any grants which it may receive. In the case of its dissolution its available resources and the value of its moveable property will be assigned by the council to some object covered by the association's general aims, the amount necessary to meet its debts being deducted.

The association is administered by a general meeting and an administrative council. The ordinary general meetings are held annually in the first fortnight in May in order to approve the council's report of its activity, to examine the accounts for the preceding year, to determine the budget for the coming year, and to deliberate on proposals with a view to realizing the association's general aims.

The administrative council is composed of a chairman, six vice-chairmen, a general secretary, two assistant secretaries, a treasurer, a vice-treasurer, an accountant, a librarian-archivist and fifty voting members. The chairman is the president of the association, is elected for six years and may be re-elected. Half the other offices become vacant every three years, in order of the seniority of the officials who are indefinitely eligible for re-election. Offices in the council are honorary and unpaid. Officials

(1) In 1915-1916 members' subscriptions amounted to 13,487 pesetas and grants to 8,500 pesetas.

must be chosen from the number of original members who undertake to pay a monthly subscription throughout their term of office.

The council represents the association officially and manages and administers its affairs in respect of all its engagements and of its various aims.

§ 2. THE SOCIETY'S ENTERPRISE ON BEHALF OF ITS MEMBERS.

The association conducts various enterprises in pursuit of its aims, in order to meet the social, technical and economic needs of its members. Some of these enterprises have the general character common to all institutions of this type. Thus members' appeals and requests are dealt with and supported; activity is guided towards social ends and the end of co-operation; and the sale and purchase of goods useful to agriculture and stock farming is practised, as are the sale and purchase of machines and implements. Other forms of enterprise, which in practice have great importance, need a special organization. They are the credit fund, the centre for dealing with farmers' contracts, and the office of technical, agronomic and legal advice. We will briefly examine these special enterprises.

Credit Fund. — This is the most recent enterprise of the society, having been constituted only on 31 March 1916, but it is none the less the most important hitherto established.

It was formed in response to the urgent need of Spanish agriculture for capital, a need which grew daily and which was felt with exceptional intensity owing to the European war. The war and the resultant exceptional situation of home and foreign trade have made provisioning a problem in Spain, a problem which has to be solved by an increased home production. The archaic and defective character of most of the existing systems of agriculture and the fact that agriculture is not industrialized have become apparent, and these conditions are due to the insufficiency or the total lack of capital.

It cannot be denied that since 1916 almost all districts of Spain have come to be provided with agricultural syndicates who have worked to ameliorate the position by means of rural funds. But in most cases these attempts did not meet with the desired success, in some they have completely failed; for the banks were suspicious of them and their guarantees were not always such as to inspire confidence. The need was therefore felt of a national institution which should not only afford agricultural credit but should also act as intermediary between the rural groups and the credit establishments. It was to supply this need that the Association of the Agriculturists of Spain, having first come to an agreement with the Bank of Spain, formed its credit fund.

This fund is intended: 1) to be an intermediary, connecting the capital available in urban centres with agricultural industries; 2) to cause the formation and development of local rural funds; 3) to furnish the

societies forming these on economical terms with the resources they need in order to begin their activities; 4) to regulate the movement and employment of the capital of associated institutions destined to afford agricultural credit, by providing for its investment in the case of some societies and rendering it available for others; and 5) generally to study conditions favourable to the development of agricultural credit in the country.

The chief transactions of the fund may be classified as follows :

- a) the granting of limited credit to agricultural institutions enrolled as adherent to the association ;
- b) the acceptance of savings deposits ;
- c) the opening of current accounts bearing interest ;
- d) the granting of loans on security.

Agricultural institutions which have adhered to the Association of the Agriculturists of Spain will enjoy a credit to be carefully fixed by the managers of the fund, in accordance with the solvency of their members having collective liability, and especially in accordance with their importance to social agricultural enterprise. Institutions which have obtained credit of this description will undertake : 1) to give the association a commercial guarantee signed by three members of the institution chosen for this purpose among those having an open account ; 2) to remit to the institution a quarterly account of business done ; 3) to allow any inspection of books and accounts which the association or its delegates may make, whenever such inspection may be considered useful.

Such credit once granted, the institutions may circulate the amount accruing to them by bills on the association expiring in one year, each having a maximum value of 20 per cent. of the balance of credit, or by any other commercial instrument chosen by the managers. Sums withdrawn from credit accounts will bear a fixed annual interest of from 3 ½ to 6 per cent. The capital in shares of the Credit Fund is variable. It has been fixed initially at a minimum of 250,000 pesetas, represented by 500 contributions of 500 pesetas each. At first and for the first five years of the fund's activity these contributions will be exacted as parts of a foundation fund, and will be entirely assigned to the operations of the societies. They will gradually be converted into shares. This share capital may be subscribed, in whole or part, by means of the personal acceptance of pecuniary and individual responsibility for the discharge of the fund's obligations. The members will be collectively liable for these contributions which will be equivalent to the foundation contributions paid in specie.

The subscribed share capital of the fund surpassed from the outset its initial minimum, for contributions amounting to 497,500 pesetas were received at the time of foundation. Subscriptions have since continued and in May 1916 their amount was 614,000 pesetas.

Since the fund has existed only for some months, data as to its working and development cannot be obtained ; but it may be taken to have rendered great service to the individual as to the collective members of the association and to agriculturists generally.

Centre for Farmers' Contracts. — Hitherto one of the greatest obstacles in the way of the investment and use of capital in agricultural industries has been the difficulty of acquiring and selling rural property in Spain. A very capable agency was necessary to determine the accuracy of the facts indicated by lists of offers.

The intermediary agents responsible for the sale and letting of rural properties merely supply the information given to them by the proprietors.

The cost of such work to the seller is excessive when the transaction is important. Many agriculturists, very variously situated, asked the association to form for them a special centre for contracts of purchase and sale, which should render constantly available guarantees of the description of properties to be sold, and of the circumstances attendant on sale. In November 1915 the association therefore founded an office for the purchase, sale and letting of rural properties, on the following bases :

a) A right to use the office will belong only to members, whether individuals or societies, of the Association of the Agriculturists of Spain.

b) The association will supply detailed notes as to properties for sale or to let, with photographs and any other necessary papers, and will guarantee the accuracy of data contained in the offer, on the responsibility of its technical expert.

c) The association keeps a register of offers and one of demands. To make an entry in the former it is necessary : 1) to belong to the association, being either personally enrolled in one of its classes or the adherent of a society which is among its collective members ; 2) to pay the fee, fixed at 100 pesetas, which covers the travelling and maintenance costs of the expert who inspects properties, and the cost of obtaining photographs, verifying data, etc. ; 3) to apply to the association and facilitate the work entailed by such verification.

d) The association's technical expert guarantees by his signature the accuracy of the data supplied as to the quality of lands, the kind of crops they bear, means of communication, buildings, live stock, implements and machines, etc., but does not guarantee the area unless he receive plans which allow him to investigate it on the spot. Further he is not responsible for the price a landowner may ask, this point being left entirely to the seller's discretion.

e) When once any transaction has been completed neither the seller nor the buyer will be in any way liable to make any payment.

f) Offers and demands will be advertised in the association's bulletin, in order that all members may become aware of them.

Technical-Agronomic and Legal Advice. — The association has placed at the service of its members the offices of persons especially competent in these two departments, a technical and a legal adviser, both of whom are paid by itself. It is their duty to answer the questions of members on economic, technical, legal and social points.

Legal advice is given quite freely. Technical advice is of different kinds, as follows :

a) It is given quite freely to members. They benefit thus by con-

sultations, either verbal or by correspondence, as to agriculture and rural industries; such service being looked upon as agricultural instruction or as having a general character, and including lectures and short and practical courses of instruction, etc.

b) The association offers the free services of its expert, but the members are responsible for his travelling expenses and honoraria and for the payment of any assistants he may have. Under this provision, schemes for farming are drawn up, the cost being limited to 25,000 pesetas ; lands are valued, when they have already been surveyed, the cost being limited to 5,000 pesetas ; buildings are valued where no survey or measuring is necessary, the cost being limited to 5,000 pesetas ; and permanent improvements are valued, as are the disposition of water with a view to irrigation, enclosures, farming roads, etc., the cost being limited to 2,000 pesetas.

c) For 33.33 per cent. of their total cost the association supplies services other than those which have been mentioned : it will thus survey lands, make plans and undertake other business.

According to the association's last report legal and technical advice was given in eighty-six and in fifty-four cases, respectively, and there were two thousand legal and as many technical verbal consultations.

WEST INDIES

CO-OPERATION IN ANTIGUA (1): AN OBJECT LESSON.

By W. R. DUNLOP,

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One of the most striking features of social and economic interest in Antigua — in fact in the whole of the West Indies — is the strong tendency in that island towards agricultural co-operation. The tendency there is much stronger than in any other West Indian island, and the reason for it is not difficult to find: Antigua has known to a greater extent than the other islands what adversity means. Subject to severe droughts and possessing in any case a limited rainfall on account of the island's topography, Antigua has experienced bad years. Furthermore this island has been largely dependent upon one industry — sugar production; and the low prices that have ruled for this product before the war and the relatively high cost of production have rendered it absolutely necessary to adopt economical methods.

The cumulative result has been to engender in the minds of planters a sympathetic attitude towards co-operation and the application of science, such as does not exist to the same extent elsewhere. This is shown by the close relationship that exists between the Department of Agriculture and the Agricultural and Commercial Society, and by the energetic and progressive work effected by both of these bodies for many years past.

The greatest and first example shown by Antigua in connection with the value of combination is to be found in the Antigua (Gunthorpes) Central Sugar Factory. The history of this factory has been dealt with in the West Indian Bulletin on several occasions by Dr. Francis Watts, C. M. G., who was largely responsible for its establishment. Suffice it to say that it had its origin in 1903 in a series of agreements between a group of owners of sugar estates and a company formed in London. It was arranged that the contracting proprietors should receive a first payment on their canes with a division of profits at the end of each season. The scheme was supported by the government to the extent of what now amounts to a free grant of £ 15,000. The

(1) Written from information in the files of the Imperial Department of Agriculture for the West Indies by direction of the Imperial Commissioner.

factory has made steady growth and in 1919 the original contractors may reasonably expect the distribution amongst them of shares which represent one half of the factory.

But besides benefiting the estate owners of Antigua, the central factory has been of advantage to the peasantry. Both Gunthorpes Central Factory and Bendals Factory entered into an agreement to purchase peasants' canes, and to facilitate the growing of canes and other crops; the government of Antigua reserved for peasants and rented on easy terms a considerable acreage of land.

Thus the Antigua factory besides being a financial success is an object lesson of considerable educational value. Above all it is a concrete argument in favour of the extension of the British sugar industry within the empire.

From the point of view of financial and economic importance the Antigua factory just referred to stands alone. But there have been during the past few years co-operative movements which seem to indicate more forcibly the co-operative feeling in the presidency. Such a movement was that started in 1913 to form an Onion Growers' Association. For years Antigua had been producing small quantities of onions of a very satisfactory kind and it was felt that the island possessed opportunities for development in this direction. Such opportunities lay chiefly in the possibility to supply the New York and Canadian markets before the Bermuda and other crops came in, and to establish an intercolonial trade with the more thickly populated islands, like Barbados, in the West Indies.

In 1913, an association was formally established. A central grading and packing house was arranged for, and it was agreed that the onion crops of members should be marketed on a co-operative basis through the association, a first payment of 1 c. per lb. being paid on delivery, followed by a distribution of the surplus profits. Agents were appointed in the different markets and a system of cable advices introduced. It was made known that the association's mark on each crate was a guarantee that the produce was sound, properly graded and packed. During the season 1913-14 the total weight of onions purchased by the association was 42,799 lbs.; in 1914-15 it rose to 186,198 lbs. or nearly four times the amount for the previous year. Total payment amounted to £588 or 1.5 c. per lb. The association has now established a firm connection in New York and in the intercolonial markets, and Antigua onions are becoming known, and justly so, as high class and uniform produce. It may be added as a fact of agricultural interest that in Antigua large quantities of onions are grown as a catch crop with sugar cane. Where this is done the cost of production is greatly reduced.

The success of the Onion Growers' Association has no doubt been partly responsible for those further co-operative movements in Antigua during the present year in connection with the formation of Cotton and of Lime-Growers' Associations, respectively. The Cotton Growers' Association which has now been formed, really originated in a resolution at the recent West Indian Cotton Conference held in St. Kitts during March 1916. The association includes in its membership all the principal cotton growers in

the island. There is a committee of management which has full power to deal with all matters affecting the cotton industry of the island. The association is affiliated to the Antigua Agricultural and Commercial Society and to the Antigua Onion Growers' Association, but this does not imply general distribution of responsibilities.

The Lime Growers' Association, which is at the present time in process of formation, has, it appears, for its principal object, the establishment of a small but profitable green lime trade with New York, supplementary to that of Dominica which has assumed big dimensions of recent years. Antigua, it is supposed, profiting by the experiences of Dominica and guided by her own knowledge of the value of combined action, intends to establish a central grading depot and to make beforehand, if possible, special arrangements in regard to freight facilities. While this is commendable, it is a question whether the production of limes in Antigua will ever attain large proportions.

The present account of co-operation in Antigua would not be complete without some reference to the Indian corn or maize industry of that island. It had been felt for some time that the West Indian islands should produce more corn and import less. Antigua, as might be expected, was the first to lead the way to giving effect to this idea. The principal difficulty was that, to keep, corn must be dried. This would necessitate the establishment of a kiln-drying plant, and this the Antigua government decided to do. In May 1914 the establishment was opened, its efficiency having been previously demonstrated. Antigua kiln-dried corn had been found to be as good if not better than the imported American product. The terms on which local deliveries are accepted by the granary are as follows : (1) the co-operative plan whereby a first payment of 2s. 6d. per bushel of shelled grain is made to growers, to be followed by a distribution of the surplus profits of the undertaking after paying all expenses and deducting 25 per cent. as the profit of the granary ; (2) the purchase of corn for cash at the rate of 3s. 6d. per bushel of shelled grain ; (3) the kiln-drying of corn for which a charge not exceeding 6d. per bushel is made.

Arrangements were made later for the erection of a meal-making machine.

The effect of the establishment of this granary was to increase largely the area under Indian corn in the island. It cannot be said, however, that so far the granary has been a financial success, nor is it likely to be until corn is produced in large quantities in excess of the immediate local requirements. At present it is in the nature of a government insurance of corn growing and from that point of view should at least inspire confidence.

In connection with corn growing it may be noted that during the present year an attempt to encourage the industry was made by holding a maize show. This function was highly successful and may be expected to have the desired result.

In concluding this review of events in Antigua, we may the more appreciate their importance by considering for a moment their external as part from their internal effects. The Antigua Sugar Factory was distinctly

a pioneer or experimental project. Its promotion involved heavy responsibilities on the part of the originators. It proved a success, however, with the result that a few years after its establishment another and similar factory was erected in the neighbouring island of St. Kitts. These factories in their turn have served to encourage greater centralization of recent years in Barbados.

Turning to the Antigua Onion Growers' Association we are able to record a most striking external effect. Last year an affiliated association was formed in Montserrat and a similar one in the Virgin Islands, while Nevis, if it has not an association, is endeavouring to develop its onion industry on similar co-operative lines to those followed in Antigua.

It will be seen therefore that a great deal of importance attaches to the study of the economic conditions obtaining in Antigua. It is an island which, though its prospects now are good, has been subject to adversities; but combined action in the right direction has won. Even the fortunes of the most flourishing colonies may suddenly take a turn in the wrong direction — it may be through unavoidable causes or from unpreparedness to meet avoidable ones: in any case co-operation in Antigua provides a useful object lesson that should not be neglected even by the most affluent of agricultural communities.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

DENMARK.

THE GENERAL UNION OF CO-OPERATIVE CONSUMERS' ASSOCIATIONS IN 1915 (1).

Following on our previous remarks regarding co-operative consumers' societies in Denmark we give the essential results of the activity in 1915 of the *General Union* of these societies.

On 31 December 1914, 1,407 associations — almost all of those existing in Denmark — belonged to the *General Union*. Their members numbered 219,492.

A year later, on 31 December 1915, eighty-one associations, numbering 12,636 members, had acceded to the union. The following figures show the progress of the movement since 1896.

	Number of Associations belonging to the Union	Number of their Members	Amount of Turnover in Millions of crowns (2)
1896	310	—	4.2
1901	684	90,972	13.5
1903	852	115,872	19.8
1905	1,029	143,031	26.3
1907	1,189	168,696	36.4
1909	1,224	173,808	41.7
1911	1,286	181,326	48.8
1913	1,359	194,337	62.0
1914	1,407	219,492	69.6
1915	1,488	232,128	71.5

The reserve funds of the associations which were 350,000 crowns on 31 December 1901, amounted on 31 December 1905 to 1,100,000 crowns; on 31 December 1910 to 2,775,000 crowns; in 1912 to 3,657,000 crowns; in 1913 to 3,987,000 crowns; in 1914 to 4,276,000 crowns; on 31 December 1915 to 4,583,000 crowns.

(1) Note sent by our correspondent in Copenhagen.

(2) 1 crown = about 1s 1 1/4 d at par.

The General Union is not concerned only with trade but devotes also considerable activity to industry. The following figures indicate its operations in its different spheres of action.

Commercial Activity.

(Value of operations in millions of crowns).

	1915	1914	1913
Section for colonial provisions	50.4	38.5	35.4
» » manufactures	5.2	4.9	4.6
» » edge-tools	5.0	4.2	3.7
» » grains	4.1	2.7	2.4
» » trade in wood	0.2	0.2	0.2
» » large merchandise	0.6	0.4	0.3
» » wines	0.6	0.3	0.3
» » packing	6.0	6.0	5.1
» » cycles	0.3	0.3	0.2
Total	72.4	57.5	52.2

Industrial Activity.

(Value of operations in millions of crowns).

	1915	1914	1913
Roasting of coffee	2.9	2.8	2.7
Manufacture of chocolate	0.8	0.7	0.6
» » sugar	0.4	0.3	0.3
» » tobacco & cigars	1.0	0.8	0.8
» » ropes	0.6	0.5	0.4
» » soap	1.1	1.0	0.9
» » chemicals (technical)	0.2	0.2	0.2
» » knitting	0.2	0.2	0.2
» » margarine	6.1	4.7	3.2
Spice mills	0.4	0.4	0.3
Section for corn	0.2	0.2	0.2
Packing	1.1	0.8	—
Total	15.0	12.6	9.8

It will be seen that of late years the increase in the value of operations has been distributed over almost all branches of activity, and that the profits,

which in 1912 were 2,846,000 crowns, rose in 1913 to 3,048,000 crowns, in 1914 to 3,825,000 crowns, and in 1915 to 5,005,000 crowns. In terms of the percentage of the figure representing the business done, that is of the value of the purchases giving a right to a share of dividends, the associations belonging to the union received 5.5 per cent. in 1912, 5.5 per cent. in 1913, 6 per cent. in 1914, and 7 per cent in 1915.

We will conclude by reproducing the balance-sheets of the union, dated 1 January 1916, 1915 and 1914.

Balance Sheets of the General Union.

(in millions of crowns).

Credit.

	1916	1915	1914
Stock of merchandise	11.09	7.35	6.76
In hand.	0.10	0.07	0.06
Inventory	0.32	0.39	0.29
Properties	4.90	4.63	4.20
Credit	9.17	8.30	8.37
Total . . .	25.58	20.74	19.68

Debit.

	1916	1915	1914
Co-operative societies' account	0.93	0.80	0.78
Reserve funds' "	4.58	4.27	3.99
Dividends "	0.23	0.18	0.15
Debit " for loans	1.99	2.34	2.90
Insurance " (against lowering of prices)	0.57	0.27	0.20
Reduction in value of buildings	3.50	3.50	3.00
Insurance account	0.10	0.10	0.10
Insurance renewal account ,	0.50	0.50	0.50
Insurance account (against disturbance of activity)	0.30	0.10	—
Loans on properties	0.99	1.00	1.32
Various creditors	6.37	3.81	3.65
Carried over from last year	0.52	0.04	0.04
Net excess	5.00	3.83	3.05
Total . . .	25.58	20.74	19.68

GERMANY.

HOUSEWIVES' AGRICULTURAL ORGANIZATIONS AND THEIR ACTIVITY. —

Boehm, Elisabeth, in *Blätter für Genossenschaftswesen*, Berlin, 16 September 1916.

The aim of the first agricultural association of housewives in East Prussia, which was founded nearly twenty years ago and composed of town and country members, was to inculcate in its members the principles of a sound economic education, and to institute an office for the sale to town housewives of fresh country provisions. Countrywomen were thus enabled to sell their produce more profitably than heretofore while the large towns found themselves more amply and more economically provided with foodstuffs.

The selling offices further affect agriculture in that they induce those interested in it to increase the cultivated area and to employ the soil scientifically, and in that they allow a large sale of small quantities of vegetables and fruit produced on distant farms.

At present there is at least one housewives' association in each district and a selling office in every small town. For the whole province the turnover of these organizations amounted in 1915 to 1,330,000 marks (1). There are also twenty associations in West Prussia, thirteen in Pomerania, twelve in Silesia and as many in Schleswig-Holstein and in the province of Saxony. These have, following the example of East Prussia, grouped themselves in provincial federations which have adhered to a Prussian provincial federation. In all the other Prussian provinces and German States a series of these associations are found, so that there are altogether more than 120 of them founded on similar bases and working as free societies. This free form seems to suit the organizing activity of women better than the co-operative form, which invariably exacts a larger measure of work and of responsibility than housewives are able to supply. In spite of the unsuccessful experience at Hildesheim of a housewives' association organized as a co-operative society, new attempts in this direction have recently been made in Hanover, which is the province *par excellence* of co-operative organization. At Hanover itself, at Lünebourg and at Osnabrück housewives' associations and selling offices, which are co-operative in form, have been instituted.

The financial results of the enterprise cannot as yet be estimated. It is however certain that when several selling offices are established the turnover of the smallest towns increases, while on the other hand the general costs diminish. The free associations at first deduct 10 per cent. for general costs, but subsequently often effect a reduction to 8 per cent. It is found that the latter percentage will allow the maintenance of itinerant instructors, and the institution of establishments for making jams and pre-

(1) 1 mark = about 11 3/4 d. at par.

serves and of others for hatching eggs, as well as grants to social enterprises and to the daughters of poor members for their instruction in domestic economy.

In their monthly meetings the town and country members discuss prices together, and thus for the first time townswomen are able to participate in fixing prices. The shops of the associations have distinguished themselves during the war by maintaining fair prices, often lower than those which obtain in markets.

ITALY.

I. AGRICULTURAL CO-OPERATION AND SOCIAL ASSISTANCE OF PEASANTS.—

La Cooperazione Italiana, Milan, No. 1212, 6 October 1916.

The Congregation of Charity recently took important decisions in favour of promoting agricultural co-operation in the management of the lands owned by charitable institutions, and of ensuring to peasants habitually employed on the congregation's own farms a minimum of social assistance correspondent to modern needs. The provisions in question are courageous and are destined to produce the best results. They could easily be adopted by the administrators of all charitable institutions which own rural land, and several congresses have already declared themselves to this effect (1). We think therefore that it will be interesting to describe them.

Above all the council of the congregation affirmed the duty of public administrations owning rural property to endeavour to raise the level of the intellectual, moral and economic life of the peasants working on their land. The council was further of the opinion that the best means of doing

(1) In Bologna, on the 15th of last October in a meeting of the representatives of labour organizations, held to discuss the letting of rural lands owned by charitable institutions and the relations between agricultural and labour co-operative societies, an order of the day was approved, which affirmed the power of the public administrators of the province to give a preference in letting agreements to the co-operative societies, particularly to the local federation which was their best known nucleus, and which invited the delegates of the public administrations of the labour organizations to nominate a mixed technical commission charged a) to formulate "general regulations for letting" which should legitimately safeguard public interests and the particular interests of the contracting parties; b) to act permanently in an arbitrating capacity in order to prevent differences which might arise as to such leases. The congress further expressed a desire that the provincial federation should oblige its adherent co-operative societies to become more and more closely connected with the organizations existing specifically for collective provisioning and sale of the articles and commodities necessary to agriculture and derived from it (agricultural unions, autonomous communal institutions, co-operative consumers' societies, etc.), thus gradually eliminating the useless middlemen who burden production as much as consumption. See in this connection *La Cooperazione Italiana*, Milan, No. 1215, 27 October 1916.

this was to entrust the management of lands to the *co-operative societies formed by the agricultural labourers*, whenever these gave proof of an adequate technical and financial capacity.

In order to guarantee that co-operative societies undertaking the management of the congregation's farms would be faithful to the principle of co-operation, and that their technical, book-keeping and economic duties would be regularly discharged, these societies were advised to join the *Federation of Agricultural Co-operative Societies* which has offices at Milan and which proposes to aid agricultural co-operation in the matter of technique and bookkeeping, financing it and assisting the societies' collective purchases and sales.

Further, in order to aid peasants working on farms let to individuals, the council resolved :

- 1) To render obligatory the contracts as to settlements and the labour agreements in force in the respective districts, especially as regards :
 - a) minimum wages in kind and money and in shares of profits ;
 - b) hours of labour and of rest ;
 - c) guarantees and insurances in cases of illness, accident, disablement and old age ;
 - d) the registration of contracts of settlement and labour by employment offices ;
 - e) the decision of disputes between employers and peasants by submitting these to the commission of conciliation and arbitration annexed to the employment offices.
- 2) The council resolved that persons farming lands in districts in which special settlement contracts and labour agreements were not in force, should apply the most favourable conditions as to hours and wages - both in money and in kind — which were locally customary.

They should annually deposit with the administration of the congregation a copy of the contract made with every labouring family, which should conform to a model furnished by the administration.

The guarantees must be given to the peasants, to provide for the cases of sickness, accident, disablement and old age, which we have already mentioned under letter c).

Disputes arising between employers and peasants, and outside the territorial sphere of the arbitrating commission, should be submitted for amicable settlement to the president of the congregation's technical office.

The share of the administration in the costs of these provisions for the peasants will be :

- 1) A quarter of the premium for insurance against accidents.
- 2) One lira for each peasant registered or to be registered by the National Thrift Fund (*Cassa Nazionale di Previdenza*), such lira to diminish that minimum share of the registration fee which will be chargeable to the peasant.
- 3) A third of the premium for the insurance against fire of the moveables, implements, clothes and food of a peasant, the other two thirds remaining chargeable to the employer and to the peasant, respectively. The

total sum of these contributions, estimated for each property, should be taken into account at the time of the expert valuation of the dues burdening rent, and should be part of the sum annually deducted from these dues, to the credit of the employer.

All the above provisions will be comprised in the lists of stipulations as to properties let in the current year ; and since their effects can be realized rapidly and can reach a large number of peasants, the council decided to invite employers enjoying current leases to apply the conditions which favour peasants from the beginning of the coming agricultural year.

Finally to complete these provisions the council decided :

1) to vote 600 liras (1) to the employment offices for peasants, taking such sum from the reserve on the balance-sheet of 1916, and to include a like contribution in the budgets for future years ;

2) to found an itinerant chair of domestic economy, with the object of giving rules for rational housekeeping to families labouring on the lands of the administration ;

3) to promote and subsidize enterprises tending to the spread of culture, such as evening and Sunday courses of elementary instruction in the farms, circulating libraries, courses of technical instruction, etc.

4) to occasion an agreement with other charitable enterprises owning rural lands, for the purpose of instituting an *agricultural inspectorate* which will see that the rules stipulated in leases in the interests of peasants are effectively applied, that the laws of hygiene and sanitation are observed, that there is compulsory education, etc.

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2. THE POSITION OF CERTAIN POPULAR BANKS IN 1915. — *Credito e Cooperazione*, organ of the *Associazione fra le Banche Popolari*, Rome, No. 19, 1 October 1916.

The Agricultural Bank of Mantua (2). — The report accompanying the balance-sheet for 1915 (45th year) of this bank opens by drawing attention to the rapid decline in deposits in the first months of the year — from eighteen and a half millions at the end of 1914 to fourteen millions in the following May — ; and to their no less rapid increase after the beginning of the war, so that in October 1915 they again reached eighteen millions and in December twenty-one and a half millions. Thus in the first half-year there were difficulties due to the diminution of resources, and other difficulties in the second half-year due to the plenty of money, much of which was deposited only on a precarious title. These difficulties, and the necessity of being prepared to face the eventual withdrawal of part of the deposited sum, showed the bank's administrators the path they must follow. In the first place securities were prudently reduced and then the

(1) 1 s = 1.2611 liras at par.

(2) *La Banca Agricola Mantovana*.

normal course of dealing with them was resumed, such investments being preferred as were not only safest but also most readily realized. The results of this prudent management are evident in the balance-sheet, of which the principal figures can be resumed as follows :

Shareholder's property : 1,262,704 liras — including 443,000 liras in share capital and ordinary reserve, 136,000 liras in repaid shares and profits, and a special fund of 683,000 liras.

Deposits : 21,453,391 liras — including small savings amounting to more than ten millions, five millions of ordinary savings deposits, more than five millions on current account and 776,000 liras in interest-bearing bonds.

Altogether resources amount to about twenty-two and three quarter millions, as to which sum the following investments should be noted : securities on 31 December, ten and a half million ; the bank's title-deeds, more than seven million ; advances remaining, four million liras. Net profits amounted to 65,784.50 liras ; and of them 18,767 liras were assigned to the shareholders, namely 5 per cent. on their shares which is the maximum allowed by the by-laws, and 37,149 liras to the fund destined to guarantee values, while the rest was placed at the council's disposition for the employees' thrift fund, and for remunerations, allocations, etc.

The Popular Mutual Bank of Teramo (1). — This is one of the oldest establishments for popular mutual credit, having originated in 1881. The difficulties which it had to overcome in 1915 were not trifling. They did not however prevent it from developing an activity beneficent both to the city and to its own clients : it placed large means at the disposal of the commune for the acquisition of grain ; it repaid to depositors in less than ten months a million and a half liras, and it invested in national loans — all this without neglecting local needs and those of small commerce, in the interests of which the rate of discount was always kept within moderate limits — ; and finally it strengthened its banking business by a considerable sum of net profits.

To resume the bank's enterprise in this year we will give the following figures from its balance-sheet :

The total capital amounted to 634,837 liras, including 150,000 liras of capital in shares (3,000 shares of 50 liras each held by 1,234 shareholders), 75,000 liras of ordinary reserve, 397,000 liras of extraordinary reserve and a reserve of 13,000 liras to provide against oscillations in values.

Deposits on current account amounted to 146,000 liras and savings deposits to 2,283,463 liras. There was a reduction of 789,000 liras in the savings deposits, as compared with the preceding year. Not only the state of war, but also the diminished remittances of emigrants, the local agricultural crisis caused by the failure of the harvest and the vintage which obliged agriculturists to withdraw their deposits, and finally the issue of the national loans, were responsible for the decline in saving.

(1) I.a Banca Mutua Popolare di Teramo.

Securities at the end of the year gave a balance of 2,494 bills for 2,423,336 liras, including 2,022,231 liras on bills expiring within three months and 401,105 liras on those expiring later. Bills discounted in 1915 numbered 10,972 and were for more than eleven million liras. The diminution in the discounts effected, as compared with 1914, was 42,000 liras. Dishonoured bills for the year are represented in the balance-sheet by only 23,000 liras.

The title deeds of the bank's property amounted to 678,000 liras, 660,000 liras thereof being invested in treasury bonds. As regards the profit and loss account, the net profits amounted to 61,000 liras, of which sum 11,887 liras was assigned to the shareholders at the rate of 4 liras a share, 43,000 liras went to augment different reserve funds, 2,000 liras was granted to beneficent objects and 2,000 liras to the industrial school.

The Popular Mutual Bank of Verona (1). — This is one of the oldest popular banks in Venetia, having been founded in 1867, that is at the beginning of Luigi Luzzatti's organization of a propaganda of popular credit. It has always remained faithful to its early principles, and thanks to prudent administration it has attained morally and materially to a leading position. Like kindred institutions it felt last year the effects of the country's economic crisis as determined by political events: the sums deposited in this bank were at first reduced, and later, when calm had returned to the market, it had to find the best investments for the considerable sum which the plentiful return of deposits placed at its disposal. However it was able to overcome transitory embarrassments, by rediscounting largely and frequently the securities of similar banks, by subscribing to the national loans, or by reducing the rate of interest paid on deposits of each category in order to lessen their superabundance. By such measures the hard times were successfully passed. The figures on the balance-sheet are most satisfactory and show the institution's flourishing condition. We will quote the principal of them:

The shareholders' property was 756,470 liras of which 484,308 liras represents the capital (13,453 shares of 36 liras each) and 272,162 liras the reserve.

Deposits amounted to twelve and a half million liras, two million on current account and ten and a half in savings deposits. The increase shown by this item as compared with 1914 is of 1,400,000 liras.

Securities held at the end of the year gave a balance of 4,236,092 liras, showing a diminution of 800,000 liras as compared with the preceding year's balance. We have already noticed the reasons for a limitation of activity, and these also affected the year's profits.

The bank holds title-deeds of its property for 2,373,873 liras, all offering the surest guarantee and being readily realizable.

The net profits amounted to 79,392 liras; of which 30,000 liras went to augment the reserve, 24,205 liras were assigned to shareholders at the

(1) *La Banca Mutua Popolare di Verona*.

rate of 5 per cent. on their paid-up capital, and the remainder was divided among the council and the employees.

The profit and loss account shows that this bank also spent during the year more than 3,000 liras on beneficent objects.

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3. THE STATISTICS OF THE CATHOLIC SOCIAL AND ECONOMIC INSTITUTIONS. — *Azione Sociale*, organ of the Social and Economic Union of Catholic Italians, Faenza, No. 14 November 1916.

The *Unione Economico-Sociale fra i Cattolici Italiani* is compiling general statistics as to social and economic associations in Italy. With this object it has already circulated a special form of questions, asking the name of a given society, its site and address, data as to its constitution — whether legal or merely actual —, the number of its members (including those under arms), its collective property on 31 December 1915, its receipts in 1915, the assessment of members, the assessments or premiums received in 1915, its expenses in 1915.

Societies of the following categories are the objects of the enquiry: mutual aid societies, mutual insurance societies (of live stock and against fire and hail), agricultural unions for collective purchase, consumers' co-operative societies, labour and producing co-operative societies, co-operative societies for agriculture and collective letting and for building popular dwellings, and trade organizations (including offices of labour and secretariats of the people and of emigration).

National federations adhering to the Union have also been invited to supply data relative to 1915 or of later date, in order that a complete picture of Catholic economic organization may be obtained. In due time we will show the chief conclusions drawn from these important statistics.

RUSSIA.

1. CO-OPERATIVE SUPPLY AND PRODUCTION OF AGRICULTURAL MACHINES.

- 1) КОВАЛЬ В. Д. (Koval V. D.): CO-OPERATIVE TRADE IN AGRICULTURAL MACHINES in *Машина въ сельскомъ Хозяйствѣ* (*The Machine in Agriculture*) No. 1, Kiev, 15 January 1916;
- 2) ДЕШЕВОЙ М. (Dechevoj M.): THE AGRICULTURAL MACHINE INDUSTRY IN RUSSIA, *ibid*: Nos. 10 and 11, 31 May and 15 June 1916;
- 3) Д-ОЈ М. (D-oj M.): THE DISSEMINATION OF AGRICULTURAL MACHINES AND IMPLEMENTS BY CO-OPERATIVE CREDIT, *ibid*: Nos. 14 and 15-16, 15 August and 1 and 30 September 1916.

The collective supply of agricultural machines and implements in Russia is now chiefly undertaken by the co-operative credit unions, who have

been empowered by a statute of 1895, having reference to 1905, to conduct such enterprise. The number of co-operative credit unions who take upon themselves the task of providing agricultural machines for the rural population increases year by year, as does the sum of money which they thus employ. These facts appear from the following table :

Year	Number of Co-operative Supply Associations	Sums they spend on buying Agricultural Machines
1910.	—	3,200,000 roubles
1911.	—	4,900,000 "
1912.	1,638	6,346,000 "
1913.	2,457	9,638,000 "
1914.	<i>circa</i> 3,000	14,000,000 "

Last year co-operative supply was responsible for 10.8 per cent. of the whole trade in machines.

The sums which the co-operative unions lend to their members for the purchase of agricultural machines vary in amount. According to an enquiry made by the *Distribution of Agricultural Machines* the following sums were lent with this object in 1912 by the co-operative credit unions and the savings and loan funds to their members :

by 7,754 co-operative credit unions. . . 8,635,921 roubles (1)

» 1,558 savings and loan funds. . . 3,029,850 »

in all. . . 11,665,771 »

Of the 3,000 co-operative unions (20 per cent. of all the credit unions), which in 1914 undertook the supply of agricultural machines, only 723 were combined in the eleven following federations of co-operative unions :

(1) 1 rouble of gold = about 2s 1½ d at par.

Name	Year of Foundation	Number of Co-operative Unions combined	Sums spent on Agricultural Machines
1. of Kiev	1907	190	140,000 roubles
2. " Jekaterinburg	1907	74	333,760 "
3. " Melitopol	1903	34	79,484 "
4. " Berdjansk	1901	25	55,690 "
5. " Tersk	1911	86	10,438 "
6. " Nikolaiev	1915	9	—
7. " Jekaterinoslav	1911	60	20,012 "
8. " Nijni-Novgorod	1911	106	26,829 "
9. " Kubanj	1911	23	59,278 "
10. " Zlatoust	1911	20	93,747 "
11. " Blagodarinsk	1907	27	73,959 "
		723	975,197 roubles

The co-operative supply of agricultural machines has developed most importantly in the east in the federations of Jekaterinburg and Zlatoust, and in the south in the federation of Kiev. The amount of the sums spent on agricultural machines is not always directly related to the number of single co-operative unions which a federation combines, a circumstance to be explained by the fact that unfederated co-operative unions also supply their demand for agricultural machines by availing themselves of the services of the federations as central purchasing organizations. This practice becomes increasingly prevalent as the co-operative instinct grows and the co-operative unions spread. In 1914 the co-operative federations were responsible for seven per cent. of all the co-operative supply of agricultural machines. All signs point to a very notable increase of this percentage in the near future; for the whole course of co-operative supply tends indubitably to the formation of co-operative federations and thus assures the fruitful development of the co-operative supply of agricultural machines. It is symptomatic in the case of several federations — those of Kiev, Jekaterinburg, Tersk, Nijni-Novgorod and Kubanj — that they are not content merely to supply machines, but wish also to teach the scientific use of these, after they have come into the hands of the peasants, and thus to bring about good methods of farming. To this end they engage agricultural experts, set up stations where advice may be had as to agriculture, initiate co-operative unions for machines and so forth; all of which measures are calculated, like the machines themselves, to intensify and improve agriculture on the peasants' farms.

An effort which is now being made by the co-operative unions to aim

at the production of machines themselves may hold much promise for the future ; for the import from foreign countries of machines, on which annually a sum of 63,800,000 roubles was expended, has been almost stopped. The co-operative federations in Jekaterinburg and Melitopol should be mentioned in this connection as pioneers. They have already worked out plans for establishing machine factories which have the necessary strong backing. A co-operative factory which turns out 1,000 corn-winnowing machines a year is now at work in Melitopol. In view of the present large demand for machines it may be taken as certain that this factory will soon be followed by others.

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2. MUTUAL CREDIT SOCIETIES IN RUSSIA ON 1 JULY 1915. Сводъ Балансовъ Обществъ Взаимнаго Кредита дѣйствующихъ въ Россіи на 1 іюля 1915 года. - Министерство Финансовъ. (Издание Особенной Канцеляріи по Кредитной Части) (*Collection of Summarized Financial Statements of the Mutual Credit Societies operating in Russia, showing their Condition on 1 July 1915*) Special Office for Credit Business, Petrograd, P. P. Sojkin, 1916 (folio) 39 pp.

We take the following most prominent data from the half yearly report, based on figures, which has been issued by the special office for providing credit of the Ministry of Finance, as to the position and activity of existing credit societies on 1 July 1915.

The credit societies which were modelled on the Brussels " Union de crédit " in Petrograd in 1864, and of which the first fifty years of life were honoured at the appropriate time in our Review (1), numbered 1,179 in all the Russian State on 1 July 1915. Thirty-one of them were in Petrograd, eight in Moscow, about 170 in the capital towns of governments and provinces, and 970 in those of districts and in small country places. Their existence in the last named — the circumstance that these societies are found even in small market towns — has particular interest for us ; for thus they enter into business relations with the rural population, who are able to seek credit from them. The existing credit societies have by the law of 11 May 1898 been empowered to accept promissory notes secured by land and in this way to make short-term credit accessible to farmers. Exceptionally and with the permission of the Minister of Finance they may give credit not only to their own members, most of whom are tradespeople and small manufacturers, but also to the rural communities and the peasants' co-operative societies.

Of the 1,179 societies 1,039 published their reports punctually. The other 140, of which some have their spheres in territory now held by the enemy and some have been abandoned, have partially discharged their functions but they could not intimate what results they had obtained on 1 July 1915.

(1) See *International Review of Agriculture*. December 1914.

The number of members enrolled by these societies amounted to 566,182. The societies in the principal towns had of course the largest membership: in the First Society of Petrograd there were 8,137 members, in the society of the district zemstvo of Petrograd 5,824, in the Society of Tradesmen of Moscow 3,390, in the First Society of Odessa 5,477 and in the First Society of Riga 3,576. The smallest membership — thirty-six — was shown by the society of Golodaev in the Don district.

The societies and their membership were distributed as follows in the different territories:

Name of Region	Number of Societies	Membership
1. Northern	77	52,662
2. Moscow manufacturers	27	13,541
3. Central farmers	43	17,794
4. On and beyond the Volga	65	33,720
5. White Russia and Lithuania	79	26,563
6. Little and South Western Russia	244	140,033
7. Region of Southern Steppes	248	162,862
8. Kankasas	136	63,998
9. Siberia	30	12,805
10. Central Asia	18	5,883
11. Baltic Provinces	49	26,395
12. Kingdom of Poland	23	9,926
Total	1,039	566,182

As can be seen the majority of existing credit societies, and those having the largest membership, are scattered over Little Russia and the south and south western part of the State, that is over the districts which are noted as providing corn to Europe — the governments of Poltova, Tchernigoff, Kiev, Bessarabia, Tauria and Podolia.

The capital of the societies amounted to 144,268,000 roubles 115,791,000 roubles constituting the working capital, 15,579,000 roubles the reserve funds, and 12,898,000 roubles special capital. The capital of the First Petrograd Credit Society was 4,644,000 roubles, that of the Second Petrograd Society 4,327,000 roubles, and that of the Moscow Tradesmen 5,259,000 roubles. Their deposits reached 586,738,000 roubles, 188,615,000 roubles being withdrawable after notice had been given, and 398,123,000 — which was on current account — without notice. Their loans amounted to 106,318,000 roubles.

Discount being the chief business of the existing credit societies, 493,727,000 roubles under the head of exchange was more than half the whole sum on the credit side of their accounts. They lent 115,960,000

roubles on paper securities ; 35,526,000 roubles on merchandise and certificates of merchandise ; and 71,015,000 roubles on real estate, of which 5,575,000 roubles was lent on promissory notes secured by land. The value of the paper securities was entered in the books as 23,918,000 roubles.

These few leading facts are enough briefly to indicate the position and the activity of the existing credit societies on 1 July 1915. Their significance, as regards their methods and the operations they conduct, is for the most part local.

UNITED STATES.

THE CO-OPERATIVE MARKETING OF LIVE STOCK IN WISCONSIN. — R. M. Orchard in *The Banker-Farmer*, Vol. III, No. 7, June 1916. Champaign (Illinois).

Farmers' associations for the marketing of live stock in the United States now number about 500 and have had some excellent results.

The Muscoda Farmers' "Shipping" Association may be taken to be typical of organizations of this kind in Wisconsin. Its members are a group of farmers who have agreed among themselves to market their live stock together. In November 1913 they came together and chose a president, a secretary-treasurer or manager, and a yard man.

A farmer desiring to sell by the medium of the association gives a list of his stock to the manager, who keeps a register of the names of associated farmers, the number and kind of animals they have to market, and the approximate weights of these. When the manager sees from his register that he has a truckload of hogs, cattle or sheep ready to be marketed he engages a truck from the railway company by telephone for a particular day ; and then, also by telephone, instructs the farmers to deliver their stock in time. On the appointed day it is received, weighed and marked by the yard man, who keeps a list of it and of the owners, weights and marks. The animals are then loaded and sent to Chicago or Milwaukee, according to their number and quality. On the same day the manager sends to the commission house, which will dispose of the stock in the central market, an invoice in which the names of the owners and the weights and marks of the animals are indicated. When the truck reaches the central market it is unloaded and the animals are fed and watered. If they are cattle they are then sorted according to their owners ; if they are hogs it is considered more profitable to grade them according to quality. The animals are afterwards weighed and sold ; and the commission agent to whom they have been consigned pays, on the very day of the sale, the money due for them into the account which the "Shipping" Association has at a bank. He afterwards makes a report of the sale to the manager of the association, stating the costs of freight, yard accommodation, insurance and food, as well as the amount of the commission, all of which have been deducted from the gross price.

On receiving this statement the manager in his turn draws up a report setting forth the weight of the animals before their journey and at the central market, the price obtained at the central market for all the stock and for that of individual owners, the individual's share of expenses on the journey and at the market, the commission charged by the association and the share of this falling on individuals. He then prepares a statement and draws a cheque for each individual owner.

The charge for feeding the animals on their journey is based on the number loaded in a truck and the amount of food given them. For hogs the usual charge is from five to eight cents a head. The commission charged by the association to cover expenses and form a small reserve fund is three per cent. on the price of cattle and hogs and 15 cents a head on calves. A farmer not a member of the association may market his stock by its means if he pay a commission of 5 per cent. on the price of cattle and hogs and 25 cents a head on calves.

The sums thus received pay the manager's salary and the wages of the yard man and his helpers and cover any losses incurred by the death or depreciation of animals during their journey. Thus it may be said that by exacting from the owners a small premium the association insures the live stock against the risks of transport.

In 1915 the association sent out 56 truckloads of stock, as against 43 in the previous year ; and 155 farmers availed themselves of its services. Precise figures cannot be given as to the amount of extra profit which the farmers derive from such co-operative marketing but it may be estimated approximately at from 5 to 25 per cent. This extra profit might however become a loss if the manager did not watch the market very closely.

Part II: Insurance and Thrift

GERMANY.

THE PRINCIPAL FEDERATION OF SOCIETIES FOR THE INSURANCE OF CATTLE IN EAST PRUSSIA.

SOURCES:

MAKTENS, Administrator: Vom Hauptverbande Ostpreussischer Viehversicherungs-vereine. Berichte für 1914 und 1915 (*The Principal Federation of East Prussian Societies for the Insurance of Cattle: Reports for 1914 and 1915*). *Georgine*, nos. 65-66, 69-70 and 77-78 of 14 and 28 August and 25 September 1915 and nos. 39-40 and 41-42 of 13 and 20 May 1916, Königsberg.

§ I. GENERAL REPORT OF ACTIVITY IN 1914 AND 1915.

The federation was definitely founded on 11 November 1913 by the union of sixteen societies, and after having freed itself from the guardianship of the Chamber of Agriculture it reached the important position of an independent enterprise, deriving profits from its reinsurance fund and the subsidies allotted to it by the Chamber of Agriculture and the province, in the form of sums assigned to administrative ends.

It was obliged at the beginning of the war to limit to the transaction of current business its federal activity but this could resume its former course from 15 December 1914. In the first year of its existence the federation did no more than extend insurance within the territory of the province, principally by founding new societies in favour of which it pursued an energetic propaganda. But since the war continued, the following year — 1915 — could not but be devoted to an effort to maintain the *status quo* and to reconquer lost ground. This was why the federation was obliged to confine

itself to seconding, by its actions and by support in the form of advice, the federated societies and to reinforcing their interior organization. The restoration of societies which had not been able to survive the crisis had also to be secured.

Already small proprietors were represented as well as agricultural labourers, the betterment of whose pecalial economic conditions is one of the first tasks of local societies for the insurance of cattle.

The large landowners tended to form societies among their employees and cause the small local agriculturists to adhere to these. They adhered to them themselves because they wished to encourage their development : they assumed the duties necessary to their conduct and showed their interest in them on every occasion. The need for insuring the cattle of the employees of large estates, and the profit the employer derived from such insurance, were increasingly recognized.

The principal efforts of the federation were towards generalizing its own scope. But among the old societies of the province more difficulty was encountered than in districts where societies were freshly founded : the old societies very generally looked upon the federation as an enterprise having a compulsory character and enclosing the seeds of a greater or less restriction of liberty. A meeting of insurance societies had the effect of dissipating these prejudices ; and made clear the principles on which were based the terms of affiliation and the consequence of the measures which facilitated the decision to affiliate.

Since the Minister of Agriculture attached particular importance to the *insurance of pigs*, the federation undertook enquiries into the scope such insurance would have and the question of whether or not it would supply a need. If the federation should extend its activity to this branch of insurance it proposes to keep its risks entirely separate, that is to differentiate cattle and pig insurance because the latter is attended with very serious risks, especially in East Prussia. Consequently a part of the reserve fund — 10,000 marks (1) — has already been earmarked for pig insurance.

In spite of its comparatively small number of members the federation believed itself able to do without larger guarantees, and therefore rejected for the time a scheme cherished by the province of Brandenburg of grouping provinces in one vast *Reinsurance Federation*. This scheme embraced East Prussia and Silesia in addition to Brandenburg.

The federation's technique of insurance has been tested in the past years. It tends to secure within the federation equal losses or compensation for losses, the favourable conditions with regard to losses which obtain in some societies compensating for such as are less favourable in others.

If losses indirectly due to the war be left out of account — although the period which has passed may be considered normal as regards casualties among the live stock — it may be concluded that succeeding years will see this system of compensation realized, even if important casualties should

(1) 1 mark = about 11 $\frac{3}{4}$ d at par.

occur, and that after the first period of insurance — that is at the end of five years — the system will have been entirely tested.

Having completely covered its costs of foundation the federation could keep its reinsurance fund of 64,616.99 marks intact; and was thus able to participate to the extent of 40,000 marks in the fourth war loan.

§ 2. STATISTICAL DATA AS TO BUSINESS DONE IN 1914 AND 1915.

The following figures resume the statistics for twenty-eight and thirty-one cattle insurance societies, on 31 December 1914 and 31 December 1915:

	1914	1915
Number of members	1,009	931
Number of insured animals	1,202	1,082
Insured sum:		
a) total sum marks	393,064	360,649
b) average for one animal "	327	342
Premiums:		
a) total sum: "	6,384.61	7,018.05
b) percentage of insured sum "	2 %	2 %
Casualties:		
a) indemnities:		
total number "	32	39
relatively to number of insured animals "	32.66 %	33.60 %
b) slaughtered animals: "	25	20
c) indemnities in terms of percentage "	80 %	80 %
d) gross indemnities "	8,152.50	9,686.90
e) profits from slaughtered animals:		
total sum "	2,223.75	3,265.85
percentage of insured sum "	24.72	33.04
f) net indemnities "	5,958.75	6,421.05
Costs of veterinary attendance: "	1.57 %	1.74 %
a) total costs: "	700.78	569.50
b) percentage of insured sum: "	0.18 %	0.10 %
Costs of Administration:		
a) total sum: "	189.69	88.83
b) percentage of insured sum "	0.05 %	0.02 %

	1914	1915
Sum held:		
a) total sum:	" 3,145.43	3,517.41
b) percentage of insured sum	" 0.80 %	0.92 %
Deficit:		
a) total sum:	" 3,185.19	2,319.17
b) share of federation (⁴ / ₅):	" 2,548.10	1,855.37
c) share of societies	" 637.09	463.80
Causes of casualties:		
a) accidents:	5 = 16 %	6 = 15.38 %
b) parturition:	7 = 22 %	4 = 10.26 %
c) pulmonary affections	— —	3 = 7.69 %
Tuberculosis:	5 = 10 %	3 = 7.69 %
d) consequent on aphthous fever	3 = 9 %	2 = 5.13 %
e) affections of the circulation:	2 = 6 %	2 = 5.13 %
f) meteorization	2 = 6 %	— —
Foreign bodies:	— —	1 = 2.56 %
Affections of the stomach and intestines	— —	9 = 23.08 %
g) other internal diseases:	7 = 22 %	9 = 23.08 %
h) other external diseases:	— —	— —
i) unknown causes	1 = 3 %	— —
Total number of dead animals	32 = 100 %	39 = 100.00 %

Scope;

On 31 December 1914 the federation comprised thirty-four societies, of which twenty-eight were active, had 1,009 members and insured 1,202 cattle for a total sum of 393,064 marks. Of these twenty-eight societies only five were of old foundation and had adhered to the federation; twenty-three had been founded by it. The war prevented six societies — having 105 members, 148 cattle to insure and an insured sum of 48,000 marks — from becoming active.

On 31 December 1915 the federation comprised thirty-five societies of which twenty-six were active, among them the three new societies of Althof-Insterburg, Deubben and Geierswalde.

Of the other societies two, those of Sieslack and Monczen, resumed on 1 January 1916 the activity which they had been obliged to interrupt in consequence of the war; and three societies, also obliged to suspend business — those of Gerkichnen, Prostken and Kakowen —, as well as two new societies — of Augustpönen and Enzuhnen —, will probably have had part in the

operations of 1916. Two other societies were founded at the end of 1915 (Bledan and Schwanis) and these also became active on 1 January. The twenty-six active societies comprise altogether 931 members and 1,082 heads of cattle insured for 369,649 marks. These figures show retrogression in comparison with those for the previous year (1914); but it is right to note the difference in this respect between the movement of business within the societies during the year, and the total cessation of the activity of societies fully active in the previous year. In the case of the former the reduction in the number of members was one of only thirty-one, that of animals was of forty-five and that of the insured sum 4,875 marks. As of these forty-five heads of cattle indemnities were paid for thirty-nine the retrogression should be expressed as one only of six. In the second case, in which we include societies not yet active and those which had ceased to be so since the preceding year, the retrogression is certainly very marked, the reduction being one of 150 members, 211 heads of cattle and 33,400 marks.

The difference between the number of members and of heads of cattle shows that it is not only owners of single cows—for whom this organization was especially intended—who have adhered to the various societies. The statistics allow the further conclusion that small societies, insuring only twelve, fifteen or eighteen heads of cattle, have been founded. The principle of admitting small societies, on which the federation rests, has entirely withstood proof.

The federation has adopted an important principle—that namely which obliges members to insure with their societies all the cattle they possess on the land within the society's sphere, of course in the measure in which the animals allow of insurance. Although this rule is not always easy to apply, and is often an obstacle to the foundation of new societies and especially to the adherence of existing societies insuring cattle, the federation judges it necessary not to depart from it because only its unerring and inflexible observation can ensure to the small landowners all the advantage which insurance is capable of affording them.

Insured Value :

The total sum insured was 393,064 marks in 1914, that is 327 marks per insured animal which gives a reasonable standard. The same may be said of 1915 when this average was 342 marks. It is however to be anticipated that it will be much raised owing to the increase in the price of cattle. We here touch on a question as to which it is not always easy to give weight to the federation's principle in the model by-laws of the societies.

On the one hand live stock must not be insured *above* its value lest too great risks be assumed; on the other it must not be insured *below* its value if it be desired to give to the insurer real help which will allow him, if a casualty occur, to procure an animal to take the place of that lost. The case of under-insurance is met with most frequently: people tend to insure their beasts below their value because they are unwilling to pay a premium

which seems to them excessive before they are face to face with the dreaded occurrence of a casualty. It is this state of mind which it is attempted to combat.

The federation makes a point of the insurance of cattle up to their full value, even when this has been increased, because only thus can the economic aim be fully realized.

Premiums :

Two per cent. has generally been exacted during the first period of insurance. This rate has been universally applied to newly founded societies, but in the case of old societies already adherent to the federation it has been possible from the beginning to charge a lower rate.

It is probable that after the first period and at the end of each succeeding one the level of premiums will be quite different in the different societies : it varies according to the measure in which the societies have had to bring the federation under contribution during the past period of insurance. The societies which, thanks to good farming, have gone only a very little beyond that normal rate of casualties for which the federation compensates to the extent of four fifths, or have had no casualties at all to register, can count on a reduction of the premium bringing it below two per cent. On the other hand those which have not been able to make up for the various years during which they went beyond the normal rate, by economies in other years during which they did not reach it, must face the prospect of increased premiums in the succeeding period of insurance

Casualties :

In 1915 indemnities were paid for thirty-nine animals, that is 3.60 per cent. of the total number insured, as against thirty-two or 2.66 per cent. in 1914. Of these thirty-nine animals twenty were slaughtered. The gross sum of the indemnities was 9,686.90 marks or 80 per cent. of the insured value. The sum realized for the slaughtered animals was 3,265.85 marks or 33.04 per cent. of the gross amount of indemnities, the net amount of these being therefore only 6,421.05 marks or 1.74 per cent. of the total value insured.

In this connection it should be stated that the percentage of the gross sum of indemnities realized from the slaughtered animals was much higher than in the preceding year — 33.04 as against 24.72 per cent. It is susceptible however of a yet greater rise in value.

Experience shows generally that during a quinquennial period an insurance society has one or two good years in which it does not even reach the normal level of casualties, two medium years in which it receives only a little more than the sum which it has to pay out in indemnities, and one or two bad years in which indemnities much surpass the amount of premiums. The differences in the proportion of the profit from enforced slaugh-

tering to the total sum of indemnities are sometimes so great that they cannot be explained only by the varying quality of the meat sold: they are due to the diversity of the causes leading to the animal's death but they give rise to a certain doubt as to the skill with which some societies conduct commercial transactions.

It is true that some districts have still to submit to the knacker's exclusive right to the carcase for which, as a rule, he pays a very small indemnity or none at all. The federation however does all it can to stimulate the societies to obtain the maximum profits from slaughtered animals, in order thus to reduce total losses to the strict minimum.

Costs of Veterinary Attendance :

These amounted in 1915 to 569.50 marks or 0.10 per cent. of the round sum insured.

In comparison with 1914, in which 700.78 marks or 0.18 per cent. was spent under this head, they had certainly diminished ; but this should not lead to the conclusion that most veterinary surgeons in discharging their duties observed the precepts of general interest which are at the basis of the activity of the insurance societies. The diminution is to be ascribed to the fact that veterinary surgeons were summoned less frequently, for the good reason that they were not to be found everywhere where they were wanted.

Conditions resultant on the war — the generally inferior quality of live stock — produced a conviction that in regard to the question of risks *the introduction of a compulsory veterinary examination* is absolutely necessary. Unfortunately this measure would in many cases be a dead letter, for in numerous if not in all districts no veterinary surgeon is available, so that insurance which provided for the compulsory examination would be impracticable. Where a veterinary surgeon is to be had his services would involve the societies in a large additional expense. It was necessary therefore to give up the project of making the compulsory examination general, merely exhorting the societies to exercise the greatest caution when there was question of their accepting new animals for insurance.

Costs of Administration :

Like the costs of veterinary attendance those of administration form a part of the expenses which, if losses keep within their normal limit of 70 per cent., ought to be covered by receipts; and they should naturally, in the interest of the societies, be kept as low as possible. Their total sum — 88.83 marks or 0.02 per cent. of the whole insured value — shows a decrease as compared with 1914 when such percentage was 0.05. This item of the societies' expenditure will in the future be perceptibly increased: for hitherto the societies have not had to send representatives to large meetings, paying their travelling expenses ; and they will have gradually to increase their stock of printed matter, with which the federation initially provided

them, free of cost. The condition necessary to keeping administrative costs as low as possible is that of gratuitous service.

The society has been preserved in a good condition financially because the year 1915 allowed the principle of compensatory losses — which, as we have seen, is fundamental to the federation — again to be observed. This result is due, it is true, to the grant of a sum of 1000 marks by the “Notstandsfonds” of East Prussia, as indemnity for losses indirectly caused by the war, and to the effect of the subsidies accorded by the Minister of Agriculture in aid of the societies in embarrassed circumstances. For this object the federation receives an annual grant of 3,000 marks. But during these two years the whole of this amount has not been used, and it has been possible to pay the sum so saved into a *relief fund*, which is intended to allow aid to be given at the end of the period of insurance to societies then in the debt of the federation for advances. In this way these societies will not have to raise their premiums payable in the succeeding period in order to redeem the debts thus incurred. A request made to the minister for fixed financial support, which would allow costs of administration and former printing costs to be met, was however not granted.

Causes of Casualties :

In this respect 1915 showed improvement as compared with 1914. The societies can have no influence except as regards casualties caused by accidents, difficult parturition and the swallowing of foreign bodies. The accidents have certainly increased in number by one; but the casualties consequent on parturition have diminished by three, those consequent on tuberculosis by two and those consequent on aphthous fever by one. By putting into execution its plan of adopting the method recognized by the State, as being the best for the fight against tuberculosis and that which those interested can themselves follow, the federation will reduce the ill effects of this devastating disease on the total sum of losses.

But this plan cannot be put into execution before the return of normal circumstances.

The federation can also exercise a certain influence in favour of the reduction of casualties consequent on accidents and it will not fail to do so. The accidents are usually due to the carelessness if not to another fault of the insurer. The federation devotes much attention to a revision, as complete and extensive as possible, of all the rules concerning its rigorous inspection of the care given to animals and of the manner in which they are lodged and fed.

Diseases of the digestive organs (intestinal tumours, appendicitis, twisted intestines, obstructions, digestive troubles) were responsible for nine casualties in 1915 — a very large number, perhaps explained by the bad quality of the forage harvest. Among other internal diseases occur cardiac affections, dropsy, affections of the matrix, inflammation of the spinal cord, fistulae of the salivary glands, and blood poisoning.

Financial Position. Number of Casualties beyond the Normal Limit. Compensation for Risks (the "fifth") :

The total expenditure of the societies under the head of casualties, costs of veterinary attendance and costs of administration — premiums paid to the federation being included —, amounted — when the receipts from premiums paid to the societies, the slaughtering of animals and the ministerial subsidies left over for 1915 had been deducted — to a sum of 2,319.17 marks (3,185.18 marks in 1914); and in this outlay the federation participated to the extent of four fifths or 1,855.37 marks (2,548.10 in 1914), and the societies to that of one fifth or 463.80 marks (637.09 in 1914). The federation has not yet had to exercise its right, conferred on it by the by-laws, to make societies, which have had to pay extraordinarily high indemnities owing to bad farming, participate in payment for the excessive casualties to the extent of two fifths.

The total sum advanced by the federation to the societies during the five years for which the period of insurance lasts is covered by the societies' reserves. If they have no reserves — that is if *every* year their number of casualties be above the normal —, or if their reserves be insufficient — that is if their bad years have been more frequent than their good —, they are not bound to make special payments to cover the federation's advances. They have recourse to an expedient less felt by their members, namely they increase the premiums for the next period of insurance. The amount which a society pays to the federation is thus augmented, and *little by little* the debt contracted with the federation is redeemed by payments spread over five years and not by a single payment.

The proportion in which the premium is increased varies naturally with the size of the debt. In view of the ministerial aid given to the less wealthy societies, which have had to suffer particularly bad years through no fault of their own, this debt should never reach an exorbitant level, and there should be question only of a fraction added to the percentage payable as premium and of the payment of pfennigs (1) by the insurers. There are federations of which some societies have been able to reduce to 0.85 per cent. the rate of their premiums which was at first 2 per cent. The responsibility of societies for casualties surpassing the normal limit shows that they are no longer interested in the economical management of common funds. Precaution is justified ; for if the federation placed itself in a position to pay for all casualties surpassing the normal limit the societies might easily adopt such methods of administration that prudence and thrift would be the least of their cares. The largest reserve fund would be unable to hold out for long. To compensate for risks with the premiums of the various societies and within the federation is to give to the technique of insurance its one and only firm basis. It may be noted in this connection that the excess of casualties over the normal limit is influenced, in the societies and con-

(1) 1 pfennig = .01 mark.

sequently in the federation, by the fact that ministerial aid is given to societies having to face financial difficulties.

The total sum held by the societies was 3,517.41 marks in 1915, that is 0.95 per cent. of the insured value, and shows progress as compared with 1914 when it was 3,145.43 marks and 0.80 per cent. of the insured value. Only four societies are in debt to the federation and they are so to no important extent. All the others have reserve funds: some very small — 6.33 marks, other as much as 334.86 marks.

It should be mentioned that, contrary to its first intention of calling in advances only at the end of the period of insurance, the federation has decided, in order to avoid the consequent loss of interest, to ask the societies for repayment in future as soon as better times have brought them excess profits and made it possible for them to think of a repayment, however gradual, of their debts.

ITALY.

THE MUTUAL FUNDS FOR INSURANCE AGAINST THE ACCIDENTS OF AGRICULTURE.

SOURCES :

FERRARI (Prof. Prospero) L'assicurazione contro gli infortuni sul lavoro in agricoltura (Insurance against the accidents of agricultural labour), Rome, 1914.

ATTI DEL CONGRESSO PER LE MUTUE INFORTUNI SUL LAVORO, con statuti e istruzioni per la costituzione di casse mutue infortuni sul lavoro (Proceedings of the Congress of the Mutual Societies for the Accidents of Labour, with statutes and instructions for the constitution of mutual funds for the accidents of labour). Milan, 19 February 1911. National Committee of Agrarian Mutuality. Milan, Arti Grafiche, 1911.

STATUTES AND REPORTS OF THE VARIOUS MUTUAL FUNDS IN ITALY.

A recent vote of the general council of the *Istituto nazionale per la mutualità agraria*, that the government might present to the chamber as soon as possible the scheme for a law which would extend compulsory insurance against the accidents of labour to fieldworkers (1), has revived in Italy the discussion of this important problem which for long years

(1) See in this connection, *La Mutualità Agraria*, the organ of the *Istituto Nazionale per la Mutualità Agraria*, Rome, no. 21, 30 September 1916. Recently the General Labour Conference resolved as follows: "The directing council of the General Labour Conference will reaffirm the preceding votes as to the necessity for that comprehensive insurance of labourers against sickness, disablement and old age which will complete the insurance against accidents. It will press the government to promulgate the promised law as to the accidents of agriculture, taking into account the principal requests which the organizations have made from time to time namely:

a) that the insurance be compulsory and protect without distinction all tillers of the soil and farm labourers, including small labourer-proprietors.

b) that the right of agricultural labourers to insure against temporary disablement be recognized;

c) that insurance be entrusted to the compulsory mixed unions, their function being completed by the insurance of the National Accidents' Fund;

d) that simultaneously with the promulgation of the law as to the accidents of agriculture more equal representation be given to labourers, on the council and committee of the National Accidents' Fund.

has awaited a statutory solution (1). Pending legislation some proprietors and directors of agriculture have long provided spontaneously for the insurance of fieldworkers, having united for such end in special mutual societies. There are six of these: one at Vercelli which had the merit of being the pioneer in 1902, and the others at Florence, Milan, Turin, Bologna and Rome. Today when the question is again being mooted we think it useful to give some data as to their organization and that of societies of other kinds which do business in the same branch of insurance. We will thus show the manner in which private initiative has been able in Italy to face and to overcome difficulties both ingeniously and economically, in the absence of an organic law, and will show also the difficulty of the problem.

§ I. THE MUTUAL FUND OF VERCELLI.

It was the *Associazione fra gli Agricoltori del Vercellese* (2) which in 1902 took the initiative in Italy in organizing insurance against the accidents of agriculture, even before in 1903 that law (29 June 1903, no. 243) had been promulgated which compels insurance in the case of several kinds of agricultural labour (threshing by machine, felling in woods, work done with the help of motors, etc). The *Associazione* instituted the Mutual Fund of Vercelli in the form of a co-operative society, and many agriculturists adhered to it. Impelled by a sentiment of humanity or a desire to free themselves from possible civil liability they thus guaranteed just indemnities in cases of accident to their dependents. The fund became active on 1 June 1903, insuring about 15,000 labourers for total wages which amounted to 3,000,000 liras a year. The law which has been mentioned was passed, and the fund, wishing to undertake the compulsory insurance it enacted, transformed itself into the fund of a union, legally recognized by a royal decree of 10 August 1904, and having by-laws which allowed it to extend its action to the agricultural labourers whom the law did not compel to be insured.

The fund indemnifies, in cases of death and of permanent disablement, whether total or partial, all workmen, both casual and permanently

(1) Many proposed laws tending to extend compulsory insurance against the accidents of labour to fieldworkers have at various times been brought before the Italian parliament, on the initiative of parliament and of the government. But for various reasons none of them has as yet been passed. The last was brought forward in December 1915 and was due to the deputies Borromeo, Venino and Belotti. See in this connection our article, "A New Bill for Compulsory Insurance against Accidents in Agricultural Labour", in our issue for June 1916, and the article of the deputy Bartoli Belotti, "Per l'assicurazione obbligatoria degli infortuni sul lavoro agricolo", in the *Nuova Antologia*, Rome, No. 1073, 1 October 1916.

(2) Association of Vercellese Agriculturists.

employed, in the measure fixed by the law for compulsory insurance (31 January 1904, no. 51) now in force, namely :

- 1) in the case of death an indemnity equal to five years' wages ;
- 2) in the case of total permanent disablement an indemnity equal to six years' wages and never less than 3,000 liras (1) ;
- 3) in the case of partial permanent disablement an indemnity equal to six times the amount by which the yearly wages have been or may be reduced, and never less than 500 liras.

Up to 1909 indemnification for temporary disablement was excluded. It was then admitted and extended to cover workmen not compelled by law to insure, and under this head about 2,600 liras was paid in 1913 in indemnities for 1,350 working days.

The sum of 239,412.05 liras was paid in ten years for various accidents as follows :

1904	liras	2,855.00	1909	liras	8,442.52
1905	»	10,248.00	1910	»	25,433.26
1906	»	15,568.35	1911	»	28,073.05
1907	»	23,855.12	1912	»	42,568.70
1908	»	17,839.90	1913	»	58,628.15

Premiums are fixed according to the area of the land and the cultivated land, and — reimbursements being taken into account — they have varied from 0.52 liras to 0.62 liras a hectare (2).

The chief merit of the Mutual Fund of Vercelli, apart from that attaching to the position of pioneer, is that it has based insurance not only on the value of the wages of each single labourer, but also on the sum of the labour required by a determined area according to the mode of its culture. Consequently a premium attaches to an area independently of any identification of particular labourers ; and therefore the pay-books and the registration of labourers, on which the institutions insuring industrial workers insist, have been abolished.

When the amount of labour required for a crop has been determined as well as the area it occupies within a farm, the particular system of rotation of crops being taken into account, average sums for a hectare can be computed.

In Vercelli and adjacent lands these have been fixed at 157 liras and 175 liras a hectare. At the rate of 5 per cent. they give the amounts of the initial preventive premiums as 0.785 lira and 0.875 lira a hectare, which amounts have been reduced to 0.52 lira and 0.62 lira by the effect of reimbursements.

The financial year of the fund begins on 11 November and ends on 10 November, thus corresponding to the farming year. When the books are

(1) 1s = 1.2611 liras.

(2) 1 hectare = 2 acres 1 rood 35.383 poles.

balanced annually the difference between the receipts (premiums and any other sources of revenue) and the expenditure (payment of indemnities and administrative and other expenses) is, as to three tenths, assigned to a reserve fund, and is restored, as to seven tenths, to the members of the society proportionately to the premiums they have respectively paid. If there be a deficit the members are asked for a supplementary premium proportionate to that they have already paid. There may be no trespassing upon the reserve fund until it has attained to the sum of the premiums in the first year of the society's activity.

At first the fund's activity reached only the *arrondissement* of Vercelli; then it was extended to the *arrondissement* of Novara and to Lomellina, and thereafter successively to the *arrondissements* of Biella, Casale Monferrato, Pavia and Abbiategrasso.

Only those may belong to it who are directly or indirectly engaged in agriculture, as farmers or agents. For admission a written application is necessary in which the total area of the land under cultivation must be stated. The whole number of the members constitute the society's general meeting. The society is administered by a directing council composed of a president and six members, elected by the general meeting by secret ballot and a majority of votes. The president holds office for three years and is always eligible for re-election. The other members of the council also hold office for three years: one third of them are elected every year and they are not eligible for re-election for a year after they have ceased to hold office. The general meeting also elects six arbiters, of whom three determine wages according to declared area and three pay indemnities. The arbiters hold office for three years, a third of them are elected every year, and they are always eligible for re-election. The meeting also elects annually from among the members three legal representatives and two deputies for these. All offices are unpaid, but the arbiters have the right to be reimbursed for expenses incurred in the course of their duties.

§ 2. THE MUTUAL FUND OF FLORENCE.

The mutual fund of the rural proprietors of Tuscany for the insurance of persons employed on farms against the accidents of labour (1), which has its offices at Florence, was constituted on the initiative of the local agrarian committee by a resolution of 4 December 1908 and received the status of a "moral body" by a royal decree of 25 February 1909. It began its activity on 5 April 1909, including within its scope all Tuscany, that is to say the provinces of Florence, Arezzo, Sienna, Lucca, Pisa, Livorno and Grosseto. The fund completed on 29 February 1916 its seventh year, and it appears from its last published report that at that date, which term-

(1) *Cassa mutua dei proprietari di fondi rustici in Toscana per l'assicurazione del personale delle aziende agrarie contro gli infortuni sul lavoro.*

inated its year of business, it had 768 enrolled members, and insured 961 farms which comprised 12,634 pieces of land having a total area of 318,607 hectares. The distribution according to the kinds of cultivation was as follows :

Sowed land, vines, olives	hectares	86,404
Sowed land only	"	53,650
Vines and special crops	"	2,464
Underwood	"	94,452
Forest trees	"	30,261
Fallow, pasture	"	51,376

This fund insures all persons, whether compelled to insure or not, who are employed in any kind of agricultural labour, permanently or casually ; and since almost everywhere lands are held on the *métayage* system, the insurance comes to comprise not only all the members of the cultivators' families but also all the casual labourers, the *braccianti*, and the labourers employed on building, forestry, threshing etc :

The total number of these persons was computed on 28 February 1915 to be 119,938 cultivators, of whom 44,455 were males over thirteen, 34,931 adult women, 32,192 men and women over sixty-five, and 8,360 boys under thirteen whom the insurance did not cover. There were also about 6,800 casual labourers who were enrolled by the fund.

The annual premium is fixed according to the area of the farm, the various types of cultivation being taken into account, as well as the relation between the area and the rural population, and special risks attaching to any type of cultivation, to operations for the conversion of products, or to the use of machines etc.

The complexity and the variety of agrarian conditions in the different Tuscan provinces has rendered it necessary to establish tariffs or premiums varying from 0.30 lira to 1.50 liras a hectare for lands bearing grass crops, and joined to lands on which plants of the tree family are grown ; while fixed premiums of 0.40 lira and 0.20 lira have been adopted in the case of woods and underwoods.

Since 1914 premiums have been reduced by 20 per cent., the result of previous years allowing such reduction to be effected without danger to the safety of the Mutual Fund. This fund has further provided for the constitution of a reserve formed from admission fees of 0.10 lira for each hectare of cultivated land and of 0.05 lira for each hectare of woodland and pasture, and from the interest on the sums on deposit. At the end of the seventh year of the Mutual Fund, that is on 29 February 1916, such reserve amounted to 124,035.44 liras, and this when joined to a special reserve of 10,000 liras gives a sum of 134,035.44 liras.

The Mutual Fund of Florence indemnifies, in cases of death and total or partial permanent disablement, anyone incurring such in the course of

labour (1), whether or not he be compelled to insure. It also pays indemnities to persons temporarily disabled in the course of labour, but only if they be subject to the obligation to insure. However in the case of grave accidents, happening to labourers who are not compelled to insure and entailing expenses for hospital or other medical treatment and prolonged temporary disablement, the fund grants fitting subsidies.

These indemnities are payable to the victims of accidents arising in the course of labour who are not subject to the obligation to insure. To those within the scope of the law of 31 January 1904, no. 51, as to accidents of labour, indemnities are paid at the rate of six times the amount of annual wages for permanent total disablement, and five times their amount for death. From 1909 to 1915 indemnities paid in response to the claims which were met amounted to 361,438.17 liras, namely :

Year	Claims Met.	Indemnities Paid. Liras.
1909	92	9,995.46
1910	220	25,363.73
1911	328	49,850.49
1912	410	62,740.10
1913	513	81,722.81
1914	547	97,978.78
1915	318	33,786.80
Total . . .	2,428	361,438.17

The classification of the causes of the accidents has a certain value because statistics of this description are almost entirely lacking. The data as to the Mutual Fund of Florence, which we here reproduce, explain its activity in a district of very complex agriculture and have therefore a particular importance. The kinds of labour in the course of which accidents were incurred were as follows :

(1) If a member meet with an accident he must notify the fact on a special form, on the back of which the doctor must give the necessary facts as to the nature of the injury and its consequences and the term of disablement. In the case of every accident the member is obliged to bear the cost of the first medical certificate and attendance. When the doctor's certificate testifies that the victim has been permanently disabled the Mutual Fund invites him to receive a visit from the fund's skilled doctors, who together investigate and estimate the degree of partial disablement, the corresponding deduction in labour power, and the indemnity due.

Accidents distributed according to the labour which caused them.

	I 1909-10	II 1910-11	III 1911-12	IV 1912-13	V 1913-14	VI 1914-15	VII 1915-16	Total
Woodcutting	43	111	162	166	170	223	202	1077
Falls from carts, transport.	23	41	60	86	89	88	80	467
Falls from trees, pruning .	17	24	56	68	85	99	94	443
Building	16	53	73	73	77	80	63	435
Work in cellars	14	12	16	35	52	59	15	203
Work of herds	13	22	26	59	73	76	51	320
Cutting forage	11	16	26	30	40	46	39	208
Falls in general	10	25	51	37	78	100	90	391
Tilling soil, bringing it under cultivation	10	18	58	38	53	78	53	308
Harvest and hay harvest	8	44	48	69	58	63	74	364
Various agricultural labour.	5	23	18	28	75	112	60	321
Threshing	5	20	17	44	40	40	20	186
Quarries, claypits	3	6	4	14	22	15	15	79
Presses, mills	3	4	8	9	6	18	12	60
Carpenter's work	1	6	10	9	14	13	16	69
Supervision and keeper's work	2	6	2	5	6	8	9	38
Various causes	6	12	24	18	20	30	26	136
Total . . .	190	443	659	788	958	1148	919	5105

From this complexity of facts the rich economic and social results to which the Mutual Fund of Florence has attained can easily be understood, results which have had the great merit of introducing Tuscan agriculturists to the principle of mutuality, and of stimulating the *métayer's* activity by interesting him and by binding him more closely to the soil which he tills.

§ 3. THE MUTUAL FUND OF MILAN.

The Lombard Mutual Fund for Insurance against the Accidents of Agricultural Labour (1) was founded on the initiative of the local association of proprietors and managers of properties. It sby-laws date from 21 May 1910 and it began its activity in November of the same year.

(1) *Cassa mutua lombarda di Assicurazione contro gli infortuni sul lavoro nell'agricoltura.*

Its activity extends over the Lombard district which presents a great variety of forms of agriculture. Subsequently to its foundation it fixed its annual premiums, based on area, in accordance with these forms and the respective risks they entail.

The insurance covers cases of death and of permanent total disablement; partial disablement is not considered unless it is equal to ten per cent. of total disablement; indemnities are paid after twenty-one days for temporary total disablement.

The indemnities are as follows: in case of death — to a man 2,000 liras, to a woman 1,000 liras, to a child 500 liras; in case of permanent total disablement — to a man 2,500 liras, to a woman or child 1,200 liras; in case of temporary disablement — 1 lira a day to a man, 0.50 lira a day to a woman or child, the latter being defined as a person between twelve and eighteen years old.

At the end of 1914 the fund had 416 members. In this year claims were made for 207 accidents and 183 of them were acknowledged. Of these 176 were met by temporary indemnities which amounted to 3,919 liras; one non-indemnifiable fatal accident caused a grant of 400 liras; and six claims on account of permanent partial disablement were indemnified by a total sum of 1,040 liras. The victims included thirty children, 161 men and sixteen women, their ages being as follows:

from 18 to 20 years	17	from 61 to 65 years	7
" 21 to 30 years	38	more than 65 years	7
" 31 to 45 years	49	of indefinite age	13
" 46 to 60 years	46	children from	
		12 to 14 years	30

The accidents occurred in the months in which work was most intense and in which special works, such as the rearing of silkworms, are usually accomplished.

The classification of the causes of accidents is peculiarly important. It results from it, according to the opinion of experts, that the gravest risk in agriculture is not so much one due to the use of machines as a risk inherent in the very nature of the industry. Thus fifty-six accidents occurred through falls from carts or haylofts, thirty-seven were attendant on herding animals, twenty-five on transporting products, fourteen on the labours of the hay-harvest and nine on those of forestry, while only thirteen out of 207 involved injuries by agricultural machines or implements.

The injuries which had such origins affected different parts of the body as follows:

feet	51	accidents	arms	16	accidents
hands	46	"	head	8	"
trunk	38	"	face	6	"
legs	38	"	eyes	3	"
			groin	1	"

The statistics as to indemnities are as follows:

	Years			
	1910-11	1911-12	1912-13	1913-14
For death	—	—	—	1
" permanent disablement	—	1	5	6
" temporary disablement	—	6	57	176
Without indemnity	5	—	—	5
Pending decision	—	—	1	19
Total	5	7	63	207

If it be taken into account that in four years 10,623.19 liras was paid and 1,670 liras was put on one side for accidents as to which a decision was pending, it results that an accident implied in general an average cost of 39 liras, to which must be added 3 liras for expenses, giving a total of 42 liras. Finally if we compute the cost of accidents according to their consequences we find that, in addition to expenses, the average cost of temporary disablement was 26.50 liras, of permanent disablement 258 liras.

§ 4. THE MUTUAL FUNDS OF TURIN, BOLOGNA AND ROME.

Following the example of the funds of Vercelli, Florence and Milan, three others, of which we will speak briefly, soon arose.

The Piedmontese Mutual Agricultural Insurance (1). — On the initiative of the Piedmontese Agricultural Co-operative Syndicate this fund was instituted by a resolution of 20 June 1910 for mutual insurance against the accidents of labour, especially in the provinces of Turin, Alexandria and Cuneo. Its working is like that of the Milanese fund.

The Mutual Agrarian Accidents' Society of Bologna (2). — This society was promoted by the Interprovincial Agrarian Federation, was constituted by a resolution of 21 April 1910 and was authorized by a royal decree of 11 May 1910. Its activity extends especially to the provinces of Bologna, Rovigo, Mantua, Ferrara, Modena, Ravenna and Parma. It follows almost the same rules as the funds of Vercelli, Florence and Milan. Premiums are paid proportionately to the area of the insured land and in the society's last year of business varied from 0.10 lira to 0.50 lira the hectare. This figure covers the insurance of labourers bound to insure (those employed on threshing machines, on steam forage-presses, on wood-cutting etc.) and that of those not subject to such compulsion.

In the case of special works or of factories for the conversion of agri-

(1) *L'Assicurazione Mutua Agricola Piemontese.*

(2) *La Mutua Agraria Infortuni di Bologna.*

cultural products an additional premium is paid, proportionate to the increase of the risk.

Members who, according to local custom, take their own machines to work on the land of other members need pay no supplementary premium ; but if they thus work on land of which the owner is not a member they must pay a slight supplement.

The indemnity paid to labourers who are the victims of accidents varies according to whether or not they be subject to the compulsion to insure.

If they be thus compelled, the indemnity is that fixed by the law. If they be not thus compelled the indemnity is fixed as follows : in case of death 2,500 liras ; in case of permanent total disablement 3,000 liras ; in case of permanent partial disablement a fraction of 3,000 liras proportionate to the reduction of working power.

Insurance against cases of temporary disablement are not included, but members who apply for it can obtain it by paying an additional premium of 70 per cent.

This mutual fund also guarantees its members, in return for a small additional premium, against all liability they may incur by their own acts or those of their dependents, whether towards labourers employed on their farms or in any other case contemplated by the civil code.

The Roman Mutual Fund for Insurance against the Accidents of Agricultural Labour (1) This fund, which was constituted on the initiative of the Agrarian Committee of Rome by a resolution of 1 July 1914, extends its activity over the Roman province. It became active in November 1914, following the rules of other mutual funds except in the matter of indemnities which are fixed by the by-laws as follows : in cases of death, 2,000 liras for a man and 1,200 liras for a woman ; in cases of total permanent disablement, 2,500 liras for a man and 1,200 liras for a woman or a child between twelve and eighteen years old. Indemnities are paid for permanent partial disablement only if full working capacity have been reduced by 20 per cent.

§ 5. THE PRIVATE SOCIETIES FOR INSURANCE AGAINST ACCIDENTS.

In the preceding paragraphs we have briefly shown the organization of the mutual funds for insurance against the accidents of agriculture which were founded on the initiative of various agricultural associations. It is necessary also to indicate the manner in which the same insurance is effected by private societies, on the system of premiums proportionate to area and collective policies.

Assicuratrice Italiana (Italian Insurance Society). — This society, which has its offices at Milan, instituted at the end of 1908 insurance policies for all the labour of a farm, whether or not works which compelled insurance were practised on it. Premiums are fixed by contract, proportionately

(1) *La Cassa Mutua Romana di Assicurazione contro gli infortuni sul lavoro nell'agricoltura*.

to the cultivated area and the kinds of cultivation, the basic premium of 2 liras a hectare being capable of reduction when the agriculture is not very intensive. Indemnities are paid in accordance with contracts. They vary from 2,000 liras to 3,000 liras in the case of death, according to the kind of work on which the victim was engaged ; from 2,500 liras to 4,000 liras in the case of permanent total disablement; and from 1.50 liras to 2.50 liras a day in the case of temporary total disablement.

Among insurance societies this one has the merit of having been the first to deal with the optional insurance of agricultural labours by making premiums proportionate to areas, and thus eliminating the obligation to keep pay-books and registers which is burdensome to agriculture.

Società anonima italiana di assicurazioni contro gli infortuni (Italian Joint Stock Society for Insurance against Accidents, Milan) : — This society in 1905 extended its activity to accidents in the course of agricultural labour not subject to the obligation to insure, charging a premium proportionate to the cultivated area. It pays in the case of death an indemnity equal to 1500 times the daily wage of the victim up to a maximum of 2,500 liras; in the case of permanent total disablement one equal to 1800 times such wage up to a maximum of 3,000 liras ; and in the case of temporary disablement one lira a day.

Unione Interprovinciale Agricola (Cremona). — This society began to insure against the accidents of agriculture in 1907, charging 1.50 liras for a hectare of land. This sum was afterwards reduced to 0.75 lira. An indemnity of 1500 liras is paid in case of death and one of 2,000 liras in case of permanent total disablement; while in the case of temporary disablement one lira a day is paid to the head of a family and 0.50 lira to its other members for a period limited to six months.

La Fondiaria (The Land Society), Florence. — This society, well known for its insurance of life and against hail and fire, undertook in 1910 the collective insurance of agricultural labour, charging premiums varying from 0.90 lira to 2.25 liras according to the risk and the type of policy. The average premium is 1.25 liras a hectare.

Indemnities are fixed as follows : in case of death 2,000 liras for a man and 1,000 liras for a woman, in case of permanent total disablement 2,500 liras for a man and 1,200 liras for a woman ; in case of permanent partial disablement an indemnity proportionate to the reduction in working capacity if this be not of more than 20 per cent. ; in case of temporary disablement one lira a day.

Insurance to which such premiums and indemnities attach refers exclusively to agriculturists and labourers employed on agriculture, other than those contemplated by the law of 31 January 1904, No. 51, (persons employed on threshing, woodcutting, motor machines) whom it is necessary specially to insure with the society.

Cassa Nazionale di Assicurazione per gli infortuni degli Operai sul lavoro (National Fund for Insurance against the Accidents occurring to Work-people in the course of Labour), Rome. — This institution, which has a public character, was formed by the law of 8 July 1883, No. 1473. It is the

official agency for insurance against the accidents of labour and industry, and it was authorized by the royal decree of 14 May 1914, No. 547, to effect, experimentally, insurance against accidents to labourers employed on farm work not contemplated by the law, already cited, of 31 January 1904, No. 51. The insurance implies the premiums and indemnities which we shall mention.

Following the example of the mutual funds the National Fund adopted a tariff proportionate to area. The premiums payable on a hectare are fixed according to the kinds of cultivation and are given in the appended table. They vary from 0.75 lira to 3 liras a hectare in the case of grass crops; from 1.50 to 6 liras a hectare where plants of the tree family are cultivated; from 0.80 lira to 1.60 liras a hectare, without distinction among risks, for rotatory crops; from 1.25 liras to 2.50 liras for woods of forest trees; and from 0.75 lira to 1.50 liras for underwood.

These diverse premiums attach to three types of insurance which entail maximum, medium and minimum indemnities, as follows:

		Indemnities		
		Maximum	Medium	Minimum
<i>In case of death:</i>				
Men	liras	2,000	2,000	2,000
Women	"	1,000	1,000	1,000
Children and old people	"	500	500	500

<i>In case of permanent total disablement:</i>				
Men	"	2,500	2,500	2,500
Women	"	1,200	1,200	1,200
Children and old people				

<i>In case of permanent partial disablement:</i>			
Men	{	No indemnities	No indemnities
Women		of less than	of less than
Children and old people		5 per cent.	11 per cent.
			21 per cent.

<i>In case of temporary disablement:</i>			
Men 1 lira	{	If disabled	If disabled
Women 0.5 "		for more	for more
Children and old people —		than 5 days	than 20 days
			No indemnity.

<i>Relief for 90 days in case of sickness:</i>			
Men 1 lira		No	No
Women 0.50 "		indem-	indem-
Children and old people 0.50 "		nity.	nity.

Children are taken to include persons between nine and fifteen years old, men and women persons between fifteen and seventy, and old people those over seventy.

These indemnities are due only in the case of accidents which occur in the course of agricultural labour or by violent means connected with such labour. All persons within the scope of the existing law as to accidents are excluded from the insurance unless a special contract be made to insure them.

Sindacato per l'assicurazione mutua degli operai contro gli infortuni sul lavoro fra gli imprenditori di tagli di boschi (*Syndicate of woodcutting contractors for the mutual insurance of workmen against the accidents of labour*), Rome. — As is known, the law of 31 January 1904 included woodcutting among the works in the case of which insurance is compulsory, if the labourers employed on it numbered more than five. The relevant tariff was however fixed at the somewhat high rate of 90 liras for every thousand liras of wages.

The syndicate in question was formed by a resolution of 20 February 1905 and began its activity on 15 March of the same year. Its by-laws rule that it pay indemnities in the measure fixed by the law, that is five times the annual wage in case of death, six times the annual wage in case of permanent total disablement, and half his daily wages to a man who is temporarily disabled.

Members pay for each labourer they employ a cautionary fee of 10 liras, and a monthly premium equivalent to from 25 to 30 liras for each thousand liras of wages, according to whether the men are employed on making cross-beams or staves or on woodcutting, charcoal burning, etc.

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES.

AUSTRIA AND HUNGARY.

THE INSURANCE OF TOBACCO PLANTATIONS AGAINST HAIL, IN BOSNIA AND HERZEGOVINA. — *Wiener Landwirtschaftliche Zeitung* (Viennese Agricultural Journal) Vienna, No. 79, 30 September 1916.

For many years an endeavour has been made to solve the problem of insuring tobacco plantations against hail in Herzegovina, where the tobacco harvest and the vintage may be said to supply the rural population with the whole of their revenue. Since for fiscal reasons the tobacco monopoly could not consider indemnifying for damages by paying a higher price for tobacco, some other means of protecting the tobacco planters against the loss caused by such natural causes as hail had to be chosen.

At first no scheme of the sort could be realized owing to the conservatism of the native producers. Only a comparatively small number of the communes which grew tobacco decided to enter into voluntary contracts for insurance against hail. In 1910, therefore, an ordinance compelled all the planters of the *régie* of Bosnia-Herzegovina to insure their tobacco plantations. The following are the chief provisions of this ordinance:

Insurance of tobacco plantations against damage by hail is obligatory for planters of the *régie* and is based on the principle of mutuality. Broadly, the following are the chief features of the system. When the planters deliver their tobacco to the *régie* they pay a quota thereof, proportionate to the quantity they deliver, into an insurance fund. The premiums thus have the form of deductions from their normal profits. The sums intended to indemnify them for losses by hail are taken from this insurance fund, the damage sustained being estimated by valuation.

The insurance premium is 1 per cent. of the normal return made by the monopoly for the tobacco, and is paid, as has been said, into the insurance fund. If however such premiums do not suffice to compensate for the damage, they may be increased until they are equal to 3 per cent. of the return. The weakening of the insurance fund by the payment of indemnities is counterbalanced by loans bearing no interest from the provincial treasury.

If when the premium-quota has been raised to 3 per cent. obligations can still not be met — that is if losses cannot be indemnified and loans

repaid — the amount of losses, as established by the accounts department, must not be covered fully but only to the extent of a percentage to be determined by the ratio existing between resources and obligations. If on the other hand the insurance fund reach dimensions which more than allow all obligations to be discharged, the premium-quota may be reduced, or obligations may be increased so as to protect the tobacco plantations against damage by wind.

An eventual distribution of the tobacco growing communes into zones of more or less risk is contemplated, so that the highest premiums will be paid in the districts most exposed to damage by hail and the lowest in the most favoured and sheltered districts.

The technical and administrative documents attaching to this system of insurance are the responsibility of the agencies and offices of the State, and the insurance fund may incur no charge in connection with them.

Notice of damage by hail to tobacco plantations must be given within forty-eight hours of its occurrence to the competent department; which must investigate the loss and communicate the results so obtained to the competent official of the *régie*. Tobacco leaves and fragments of them which have been injured by hail must — when they have been collected, treated and dried according to the instructions of the offices of the tobacco *régie* — be carefully separated from the intact portion of the harvest, and thus delivered, at the same time as the rest of the harvest, to the commission of purchase.

The damage caused by hail is held to be equivalent to the difference between the actual sum paid for tobacco which has suffered from hail, and the value of the normal intact crop, determined by its estimated quality and quantity, that is the value of the crop if no hail had fallen on it.

The quality and quantity of the crop are estimated by technical officials of the commission of purchase in co-operation with a person of trust.

If the planter dispute their estimate another is made, a new person of trust, who is chosen by the president of the commission, taking part in it. In case of a necessity for a third estimate he is chosen by the management of the tobacco *régie*.

As early as 1910 it was found that the premium-quota of 1 per cent. was far from adequate to the payment of the estimated losses, and the provincial treasury had to advance a round sum of 100,000 crowns (1) as a loan without interest repayable in three annual instalments, to the insurance fund. Consequently in the following year (1911) the premium-quota was raised to 3 per cent. at which level it has remained.

The population are beginning to appreciate the advantages of this system of insurance more and more. It should be regarded as a first attempt to protect the tobacco planter against the elements. Experience will lead to an adaptation of insurance to real needs and to an improvement

(1) Austrian crown of gold = $10 \frac{4}{25}$ d at par.

which will profit the *régie* as much as the planters. The following are the views on this subjects of the writer of the article :

1. The planter should be made secure of indemnification for all loss occasioned by hail, and not only of a compensation fixed when the tobacco is bought. That is not the time for an estimate by the technical official of the loss occasioned by a fall of hail in July.

2. The valuation of the crop — that is to say the estimate of the probable crop — is made by the financial insurance departments together with experts chosen from the population, and is revised by officials of the *régie*. If the fall of hail occur after this estimate has been made the future sale and the quality of the crop can be computed. There is here an indication as to the manner in which losses should likewise be determined.

3. Although there is much to criticize and to blame in this manner of determining the crop it yet gives the official responsible for computing the damage some opportunity of fixing it near its real figure. But if the fall of hail occur before the estimate has been made the question appears in quite another light. How can the normal crop then be determined? An estimate can be based only on the trustworthy evidence of the oldest planters, for in some cases the crops on parcels of land are literally raised to the ground.

4. The purchase of the merchandise by the *régie* and the determination of damages should be effected rapidly, for the work to be done is considerable. It is impossible to generalize on this subject, yet it may be said that to use data as to the average yield of a commune incurring damage over a period of five or ten years would give a much firmer and a juster basis of valuation. An average figure of this sort would also be generally profitable to the stability of the insurance fund, and would meet a certain scepticism on the part of the planters as to official estimates. The figures as to losses thus obtained would not be subject to variation.

GERMANY.

1. THE BADEN ASSOCIATION FOR INSURANCE AGAINST MORTALITY AMONG LIVE STOCK IN 1915. — *Deutsche Schlacht und Viehhof-Zeitung*. Berlin, 16 August 1916.

At the end of 1915 this association numbered 451 societies and local funds. During the year one fund, formed by fifty-seven members and insuring 321 heads of live stock, resigned, but the adherence of a new society, having seventy-nine members and insuring 301 heads of live stock, was recorded.

In 1915 the insurance covered altogether 168,419 heads of live stock and indemnities were paid in 4,410 cases. Losses amounted thus to 2.62 per cent. and were higher by 0.15 per cent. than in the preceding year, a fact due to different causes — insufficient care of the animals owing to the absence of owners, scarcity of certain articles of food, impossibility of procuring veterinary attention, spread of aphthous fever.

The claims for indemnities numbered 4,548, and of them 4,248 or 94.13 per cent. were justified, 129 or 2.84 per cent. (0.16 per cent more than in 1914) were partially so, and 138 or 3.03 per cent (2.18 per cent. less than in the previous year) were unjustified. The total sum of indemnities for which local funds became liable, as a result of claims not or only partially recognized, was 24,431.22 marks (1), of which amount 2,169.16 marks was recovered as the product of the sale of the remains of the animals.

Of the 4,410 heads of cattle for which indemnities were paid :

3,745	or	84.92	per cent.	were slaughtered for urgent reasons,
430	»	9.75	»	died,
235	»	5.33	»	were slaughtered normally (insurance of live
				stock raised for butchery by Article 40
4,410		100.00		of the law).

The number of cases in which animals were slaughtered for urgent reasons fell by 3.15 per cent. as compared with 1914, that of those which died rose by 2.62 per cent. and that of the insured animals slaughtered normally rose by 0.53 per cent.

Animals slain for urgent reasons:

	No. of Cases	Percent.	No. of Cases	Percent.
After treatment or examination by a veterinary surgeon	3,068	81.92	3,745	89.70
Without treatment or examination by a veterinary surgeon	677	18.08		

Animals which died:

After treatment or examination by a veterinary surgeon	118	27.44	430	10.30
Without treatment or examination by a veterinary surgeon	312	72.46		
			4,175	100.00

The number of animals treated or examined before death by a veterinary surgeon was less by 19.30 per cent. than in the previous year, namely by 8.51 per cent. of cases of slaughter for urgent reasons and by 10.79 per cent. of cases of natural deaths.

The following table gives the causes of death or of urgent slaughter in the case of 4,175 insured heads of live stock for which indemnities were paid.

(1) 1 mark = about 1s at par.

	Number of Deaths	Percentage	Order
I. Contagious and infectious diseases	692	16.57	3
II. Diseases of the nervous system. .	141	3.38	7
III. » » » respiratory organs	122	2.92	9
IV. » » » digestive » .	1,408	33.72	1
V. » » » circulation	79	1.89	11
VI. » » » urinary organs .	129	3.09	8
VII. » » » sexual » . .	777	18.61	2
VIII. » » » locomotive » . .	240	5.75	4
IX. » » » skin	24	0.58	12
X. Poisoning	8	0.19	14
XI. Tumours and constitutional defects	206	4.93	6
XII. Animal parasites.	108	2.59	10
XIII. Exterior causes	217	5.20	5
XIV. Undetermined causes.	24	0.58	13
	4,175	100.00	
Cases of indemnities paid for insured animals raised for butchery	235		
	4,410		

The most numerous deaths were caused, as in 1914, by diseases of the digestive organs, namely 1,408 or 33.72 of the whole number, which gives an increase of 0.24 per cent. Of these 1,408 deaths 594 were due to diseases caused by foreign bodies. Deaths due to flatulence among live stock also increased notably, the reason for which must be sought in the fact that in many cases feeding had to be left to inexperienced persons incapable of correctly regulating the amount of nourishment given to animals.

Diseases of the sexual organs occupy the second place as having caused 777 deaths, that is 18.61 per cent. of their total number, or less by 2.47 per cent. than in 1914 when such percentage was 21.08.

Contagious and infectious diseases account for 692 deaths or 16.57 per cent. of the whole number, showing an increase of 1.07 per cent. on 1914.

Included among them are :

a) *Tuberculosis* which alone caused 390 deaths. This figure excludes 235 cases of tuberculosis found among animals normally slaughtered. Thus the total number of deaths due to tuberculosis was 625, or 14.17 per cent. of all the deaths. The figure shows an increase of 12.24 per cent. as compared with that of the previous year.

The increase is due, among other causes, to remissness caused by the war in the superintendence of the inspecting veterinary surgeons, employed by the State for the campaign against tuberculosis.

b) *Aphthous fever*. The number of deaths caused by this disease have increased from the forty cases reported last year to 124.

The increase in the deaths from osteopathyrosis (fragility of bones) is even more pronounced, their number actually surpassing that for 1914 by 100 per cent. The number of indemnities paid in cases of general dropsy has increased, as compared with that of 1914, by 200 per cent. The cause of these diseases is connected with feeding and should be looked for in the insufficient feeding which has resulted on the scarcity of concentrated forage, especially in the case of young animals.

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2. INSURANCE AGAINST HAIL IN THE PRINCIPALITY OF HOHENZOLLERN IN 1915-1916. — *Mitteilungen der Centralstelle für Landwirtschaft und Gewerbe in Hohenzollern*. Sigmaringen, 5 April 1916.

The following table shows the development of insurance against hail in the principality of Hohenzollern as a consequence of the preferential contract concluded at Berlin from 15 to 23 May 1900 by the Provincial Commission (*Landesausschuss*) with the Mutual Association for Insurance against Hail of North Germany :

Administrative Sphere	Number of Policies	Number of subscribers	Insured Value (in marks)	Premiums (in marks)	Insured Area (in hectares) (1)
Sigmaringen. . .	1,369	1,405	2,831,642	28,163	5,651
Hechingen. . .	1,003	1,034	955,472	10,478	1,599
Gammertingen. . .	471	493	1,047,905	10,671	2,242
Haigerloch. . .	268	807	835,458	6,995	1,417
1915	3,111	3,739	5,670,477	56,307	10,909
1914	2,693	3,236	4,437,419	—	9,643
Increase in 1915. .	418	483	1,233,058	—	1,266

As regards the number of claims met and the amount of indemnities, it should be noted that 1915, like the two preceding years, was among the most unfortunate years ever encountered in the principality of Hohenzollern. The following are the figures of the balance-sheet which refer to the claims met :

(1) 1 hectare = 2 acres 1 rood 35.383 poles.

Administrative Sphere —	Number of Claims met —	Number of Pieces of Land injured by Hail —	Area injured by Hail (in hectares) —	Amount of Indemnities (in marks) —
Sigmaringen	628	2,985	1,512	160,190
Hechingen.	255	897	134	20,511
Gammertingen	139	913	324	34,493
Hagerloch	39	154	20	3,432
1915.	1,061	4,949	1,990	218,626
1914.	612	5,700	1,482	206,503
1913.	545	4,837	1,514	102,677

Thanks to the particularly favourable atmospheric conditions, which have prevailed throughout the greater part of the sphere of activity of the Association for Mutual Insurance against Hail of North Germany, and thanks also to the administrative provisions of some years ago for the formation of reserve funds, the association has been able, for the first time in twenty years, to avoid a levy of additional premiums.

This result is the more satisfactory because the total sum paid in indemnities is very high.

SWITZERLAND.

INSURANCE AGAINST HAIL, IN 1915. — *Schweizerisches Finanz-Jahrbuch*, 1916, 17th year, Beine, Neumann and Zimmermann, 1916.

We have already in another issue of this Review dealt with the Swiss Financial Yearbook for 1916, the sixth part of which is given up to insurance. Of the different branches of insurance — life, accident, fire and transport insurance and reinsurance — it is insurance against hail which furnishes the facts most interesting to us. This form of insurance, which we have studied in numerous articles in this Review (1), has its place in this yearbook.

As is already known insurance against hail is afforded in Switzerland by two mutual aid societies: the *Schweizerische Hagel-Versicherungsgesellschaft* of Zurich and the *Paragrêle* of Neuchâtel. The former of these extends its activities over the whole territory of the Confederation and insures all agricultural products against the risks of hail; the latter limits its action to the canton of Neuchâtel where moreover it insures only vineyards against hail.

(1) *Monthly Bulletin of Economic and Social Intelligence*, November 1915, "Agricultural Insurance in Switzerland in 1913".

The Zurich society reports having received premiums in 1915 to the amount of 1,298,096 francs ; the *Paragrêle* to the amount of 34,007 francs. These figures are much the same as those for the previous year. Damages amounted for the former society to 1,392,482 francs, for the latter to 316 francs. The Zurich society, which closed its year's accounts with a loss of 116,921 francs, was informed of some 9000 cases of loss, 1,327 occurring on the single day of 2 August. On this occasion its reserve fund was of great use to it. This had in the previous year been augmented by 603,393 francs derived from surplus receipts. To meet the needs of 1915 the society drew on it to the extent of 305,662 francs. Its amount at the end of 1915 was 4,490,822 francs as against 3,832,510 francs at the end of 1910.

The year 1915 was very profitable to the *Paragrêle* which was apprised during its course of only one case of loss. Its reserve fund, already augmented by 9,000 francs in 1914, received almost the total sum of the premiums. This happy event brought its total to 108,750 francs, as against the total of 66,750 francs to which it had been reduced at the end of 1913.

NOTICES OF SOME RECENT PUBLICATIONS CONCERNING INSURANCE AND THRIFT.

ITALY.

MAGALDI (V.): *L'Istituto Nazionale delle Assicurazioni*. Extract from the *Rassegna d'Assicurazione e Previdenza Sociale*, 3rd year, 16 July 1916, 16 pages.

In this interesting pamphlet the author, who for many years has so competently filled the office of General Director of Credit and Thrift in the Ministry of Agriculture, Industry and Commerce, shows that insurance — and especially life insurance — has everywhere greatly developed, and that State intervention has seemed necessary for the regulation of its conditions. The legitimate nature of such intervention follows on the fact that free competition does not suffice to prevent the constitution of insurance enterprises which do not technically reach the standard of today and which, by their lack of frankness or even of good faith, cause bitter disappointments to the insured persons and thus impede the growth of thrift. Moreover insurance institutions need careful watching, for they accumulate large capitals which in truth represent the savings of individuals. In Europe the point has not been reached of creating by law public institutions charged to insure individuals, save in the case of several tentative efforts, as in Bavaria where by the law of 13 February 1884 a public State institution was formed to insure against damage by hail, and in Switzerland where the compulsory insurance against fire is exercised under the rule of the State monopoly. In Italy a typical example of institutions of this kind is given by the *Istituto nazionale delle assicurazioni*, formed by the law of 4 April 1912. This institution enjoys the conditions of a monopoly and practises life insurance in every possible form, the authorization given to private firms, which were legally practising such insurance on 31 December 1911, to continue their activity for ten years from the date of the said law being safeguarded. This national institution, of which this pamphlet makes clear the most salient characteristics, began work on 1 January 1913, when it insured capital of the value of 800 million francs, ceded to it by the various Italian and foreign companies which had ceased to operate in Italy.

Part III: Credit

URUGUAY.

THE MORTGAGE BANK AND ITS ACTIVITY IN RELATION TO LAND CREDIT IN 1915-1916.

SOURCES :

DE UNA RELACIÓN ENVIADA POR LA OFICINA DE ESTADÍSTICA y Publicaciones del Ministerio de Industrias de la Republica Oriental del Uruguay al Instituto Internacional de Agricultura (*Report sent to the International Institute of Agriculture by the Bureau of Statistics with the publications of the Ministry of Industry of the Eastern Republic of Uruguay*).

Recently we gave some notes on that reorganization of the Mortgage Bank of Uruguay which was decided by the law of 15 October 1915 (1). We then made clear that the essential bases on which the reform of the organization of this establishment was framed were the simultaneous extension of its function in the same direction as that of modern banks, and reinforcement of the safeguards tending to ensure its financial soundness.

We will now examine, with the aid of some data sent to us directly by the Ministry of Industry of Montevideo, the results of the activity of this bank in the year 1915-1916 in relation to land credit, with which subject the reform is especially concerned. The figures which we will give cannot of course afford an exact idea of the influence which the reorganization in question may have on transactions, for, as has been said, the law enforcing it was promulgated in October 1915, that is to say when the financial year to which these figures refer was half over. But the figures will

(1) See *International Review of Agricultural Economics*, August 1916, page 78.

serve to show the importance of those transactions of the bank which are concerned with land, and also what the bank has done to lessen the disturbance of the national economy of Uruguay due to local factors, and, even more importantly, to the European conflagration which has profoundly affected all credit transactions in the country.

When we come to examine the increase in the operations in land credit conducted by this institution, we find that during the year 1915-1916 the bank made loans of a total value of 3,562,400 pesos (1) as against 2,032,700 pesos in the preceding year, which gives an increase of 1,529,700 pesos or 75 per cent. This increase is yet more conspicuous if it be remembered that in the year 1914-1915 the requests for rural loans received by the bank from individuals were for a total amount of 5,140,400 pesos and the amount lent was, as has been said, 2,032,700 pesos, while in the year 1915-1916 the total requests were for 8,404,100 pesos and the sums lent amounted to 3,562,400 pesos. Thus in 1914-1915 the loans actually made represented 39 per cent. of those for which application was made, and in 1915-1916 42 per cent., a circumstance which proves that the increase in the loans granted last year, as compared with those granted in the preceding year, was due not to greater willingness to accord them but to a greater demand for them.

During the year under review the bank granted 157 loans secured by rural mortgages. The average sum lent was 21.62 pesos a hectare (2), and the average annual interest on mortgages was 1.73 pesos. These averages calculated on the hectare, and corresponding to the value of the mortgaged properties as fixed by the bank's experts and to their annual returns, were 49.29 pesos and 1.99 pesos.

The following table gives detailed data with regard to the mortgages realized by the bank in the nineteen departments of the republic of Uruguay.

(1) Peso = about 4s 3d at par.

(2) 1 hectare = 2 acres 1 rood 35.383 poles.

Mortgage Loans in 1915-1916.

Departments	Number of Mortgages Number of Mortgaged Properties		Total	Estimated	Returns of Properties according to the Bank	Sums for which Proprietors applied	Sums lent by the Bank	Amount of Annual Interest on Mortgages
			Area	Value				
			hectares	pesos	pesos	pesos	pesos	pesos
Montevideo . .	6	8	298	133,331	4,335	62,500	34,000	2,725
Ortigas . . .	6	6	12,246	339,496	16,841	183,500	169,000	13,549
Camelones . .	11	12	2,430	308,123	13,328	164,000	148,800	11,930
Cerro Largo .	3	3	786	35,004	1,262	20,000	15,000	1,182
Colonia . . .	12	14	2,489	231,834	8,690	92,500	74,900	6,006
Durazno . . .	7	11	15,249	729,268	23,693	256,000	247,500	19,843
Flores	4	4	1,692	130,534	4,960	63,000	49,000	3,928
Florida	5	5	1,413	91,650	2,968	23,800	15,800	1,266
Maldonado . .	2	9	1,171	45,291	2,251	25,000	19,500	1,563
Minas	15	26	8,082	432,364	18,021	256,300	189,200	15,196
Paysandú . .	34	59	51,715	2,402,418	97,634	1,253,500	1,060,600	85,035
Rio Negro . .	8	11	17,674	1,075,758	47,233	615,500	529,000	42,413
Rivera	3	3	1,440	46,082	1,824	30,000	22,000	1,763
Rocha	4	9	1,902	68,401	2,503	45,000	30,500	2,445
Salto	3	7	17,008	612,817	26,250	377,000	331,000	26,538
San José . . .	11	14	3,135	302,868	13,037	125,000	118,000	9,460
Soriano	4	4	7,143	434,440	16,144	244,000	183,000	14,672
Tacuarembó .	13	22	15,689	589,348	23,206	352,200	275,400	22,105
Treinta y Tres	6	9	3,279	112,390	4,650	102,500	50,200	4,024
Total . . .	157	236	164,750	8,121,427	328,839	4,291,300	3,562,400	285,653

This table shows that while the bank was not niggardly in the matter of granting loans it made them only on the largest and on the safest security possible.

It should be noted that during 1914-1915 the total sum of the loans granted surpassed 100,000 pesos only in seven departments, whereas in the year which ended in 1916 it did so in ten departments. In the two years the total sum of the loans reached its maximum in the departments of Paysandú and Rio Negro.

If the distribution of loans according to their importance be examined the following facts are obtained :

Distribution of Loans according to their Importance.

Category				Number of Mort- gages	Number of Mort- gaged Prop- erties	Amount of Loans granted — Pesos	Percentage of Total Amount of Loans granted
—				—	—	—	—
From	100	to	1,000 pesos. .	3	3	2,700	0.08
»	1,001	»	2,000 » . .	17	17	27,200	0.76
»	2,001	»	5,000 » . .	29	31	124,800	3.50
»	5,001	»	10,000 » . .	45	68	351,800	9.88
»	10,001	»	20,000 » . .	24	45	358,700	10.07
»	20,001	»	30,000 » . .	13	21	330,700	9.28
»	30,001	»	50,000 » . .	9	11	400,500	11.24
»	50,001	»	70,000 » . .	2	2	121,000	3.40
»	70,001	»	100,000 » . .	8	13	677,000	19.00
»	100,001	»	140,000 » . .	3	5	366,000	10.27
»	140,001	»	200,000 » . .	3	16	575,000	16.15
»	200,001	»	400,000 » . .	1	4	227,000	6.37
Total. . .				157	236	3,562,400	

We see that the maximum sum of the loans were in the category of those between 70,001 and 100,000 pesos, the average here being 84,625 pesos on a mortgage. However it may be said that the generality of loans, if their amounts be regarded, were in the category of those from 10,000 to 100,000 pesos, which comprises 52.99 per cent. of the total sum lent.

As regards the redemption of mortgages the year 1915-1916 gives the following figures :

Redemption of Rural Mortgages in 1915-1916.

Departments	Number of Mortgages	Number of Properties	Amount of Loans Repaid — Pesos —	Percentage of Total Sum Repaid
Montevideo . .	3	4	23,100	2.24
Ortegás	1	1	6,900	0.67
Camelones . . .	9	10	64,900	6.29
Cerro Largo . .	4	18	17,400	1.69
Colonia	4	3	14,200	1.38
Durazno	17	105	187,100	18.13
Flores	6	5	96,600	9.36
Florida	12	30	287,700	27.88
Maldonado . . .	2	2	2,300	0.23
Minas	2	3	9,700	0.94
Paysandú	3	3	89,500	8.67
Rio Negro . . .	2	2	23,900	2.32
Rivero	—	—	—	—
Rocha	—	—	—	—
Salto	2	5	23,000	2.23
San José	3	6	16,000	1.55
Soriano	9	6	125,800	12.19
Tacuarembó . .	3	4	39,400	3.89
Treinta y Tres .	2	2	4,200	0.41
Total	84	209	1,031,700	—

The maximum number of redeemed mortgages is found in the category comprising loans of from 30,000 to 50,000 pesos. The redemptions in this category amount to 30.37 per cent. of the total. It should be said however that many loans between 5,000 and 50,000 pesos were repaid, the repayments in this category amounting to 78.75 per cent. of the total.

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES.

DENMARK.

THE WORKING OF THE DANISH LAND CREDIT ASSOCIATIONS IN 1916.

In our issue for April 1911 we published a detailed study of the organization of rural land credit in Denmark; in that for January 1913 we included a note on the activity of the Danish land credit associations in 1911-12; in that for February 1914 an analogous note on the year 1912-13; in that for January 1916 a note on 1914-15. We have now the information which enables us to establish similar statistics for the year 1915-16. To make comparisons easy we have as usual distributed our facts in two tables, of which the second gives statistical information as to land credit associations which grant only loans on first mortgages, while the first includes all the mortgage associations founded with the especial object of granting loans at low rates of interest on second mortgages. It should be remembered that all these associations are based on the principle of mutual solidarity.

It will be seen that the amount of the loans granted on first mortgages by the fourteen associations in the second table was in round figures 1865 million crowns (1) at the beginning of 1916, that is more by 367 million crowns than in 1910. Since several of these associations do not distinguish between urban and rural loans we cannot give exact information as to the debt with which rural landed property is burdened, but it is estimated as half the total debt (2).

As regards the activity of the Mortgage Bank of the Kingdom of Denmark we note that on 31 August 1912 it contracted a new debt of 10,800,000 crowns and was thus enabled to buy from the Treasury bonds for State loans to small farmers (*Jordlodder til Landarbejdere*). The bank held on 31 March 1915 bonds of associations for land credit to the value of 33, 144,000 crowns, and *Jordlodder til Landarbejdere* bonds to the value of 16,932,000 crowns.

(1) 1 crown = about 15 s 1 $\frac{1}{4}$ d at par.

(2) See *International Review of Agricultural Economics*, 1914, VI. 67.

TABLE I. — *Position of the Mortgage Association at the end of the year 1915-1916.*

Associations		Total number of mortgages	Original mortgages	Remaining mortgages	Reserve fund	Date at which books were closed	Date of founda- tion
<i>Urban Associations.</i>							
<i>Urban Associations.</i>							
1	Hypotekforeningen for Kjøbenhavn og Omegn (Mortgage Association of Copenhagen and its Neighbourhood) . . .	2,682	45,848,700	44,908,613	1,961,310	31-3-1916	1895
2	Grundernes Hypotekforeningen (Mortgage Association of Landowners)	1,138	19,345,900	18,670,150	639,914	31-3-1916	1905
3	Hypotekforeningen for Aalborg (Mortgage Association of Aalborg)	608	4,097,700	3,169,678	182,419	31-3-1916	1895
4	Hypotekforeningen for Aarhus (Mortgage Association of Aarhus)	1,084	8,301,100	6,467,647	307,459	31-3-1916	1895
5	Jydsk Hypotekforening (Jutland Mortgage Association)	4,118	20,837,100	18,337,808	812,176	31-3-1916	1899
6	Østlernes Hypotekforening (Mortgage Association of the Dioceses of the Islands)	4,655	19,384,000	17,075,814	978,498	31-3-1916	1901
	Total 1916	14,285	117,814,500	108,629,710	4,881,776	—	—
	" 1915	13,875	114,951,200	105,146,399	4,625,288	—	—
<i>Rural Associations.</i>							
1	Jydsk Land-Hypotekforening (Jutland Rural Mortgage Association)	5,577	11,234,400	10,526,434	771,405	31-3-1916	1906
2	Östlernes Land-hypotekforening (Mortgage Association of the Dioceses of the Islands)	1,691	7,587,500	6,702,632	446,171	31-3-1916	1906
3	Husmands-Hypotekforeningen (Mortgage Association of Small Rural Landowners)	5,257	4,655,900	4,326,893	156,430	31-3-1916	1907
	Total 1916	12,525	23,477,800	21,555,959	1,374,006	—	—
	" 1915	12,921	23,996,300	22,264,610	1,295,042	—	—

TABLE II. — *Position of the Associations of Land Credit at the end of the year 1915-1916.*

	Associations	Total number of mortgages	Original mortgages	Remaining mortgages	Reserve fund	Date at which books were closed	Date of foundation
			Crowns	Crowns	Crowns		
1	Den danske Landmandsbanks Hypotekafdeling (Mortgage Division of the Landmandsbanken)	1,371	—	19,845,318	—	31-12-1915	1872
2	Kreditkassen for Husejere i Kjøbenhavn (Credit Bank for Owners of Houses in Copenhagen)	1,802	107,487,387	105,944,704	7,027,501	10-3-1916	1797
3	Østifternes Kreditforening (Association of Landowners of the Dioceses of the Danish Islands)	42,829	571,101,600	514,885,897	17,760,360	31-3-1916	1851
4	Kreditkassen for Landejendomme i Østifterne (Credit Bank of the Rural Properties in the Danish Dioceses)	12,796	153,699,100	142,709,668	4,299,378	31-3-1916	1866
5	Kreditforeningen af Grundejere i Fyns Stift (Association of Credit of the Landed Proprietors in the Diocese of Fyen)	7,075	52,798,100	48,776,850	1,403,825	31-3-1916	1880
6	Kreditforeningen af Ejere af mindre Ejendomme paa Landet i Østifterne (Association of Credit of the Small Rural Landowners of the Dioceses of the Islands)	29,185	44,200,000	38,630,662	2,321,069	31-3-1916	1880
7	Kreditforeningen af Grundejere i Kjøbenhavn og Omegnen (Association of Credit of the Landowners of Copenhagen and its Neighbourhood)	2,670	159,030,300	147,430,110	7,510,924	31-12-1915	1851

		549	9,914,000	9,148,888	1,143,374	31 -3-1916	1897
9	Kreditforeningen af jydsk Landejendomsbesiddere (Association of Credit for Rural Properties in Jutland)	35,144	433,851,100	408,198,968	19,693,082	31 3-1916	1851
10	Den vest- og sønderjydske Kreditforening af Land- ejendomsbesiddere (Association of Credit for Rural Properties in West and South)	19,233	170,027,800	157,889,792	9,031,022	31-12-1915	1860
11	Kreditforeningen af Købstadgrundjere i Nørrejylland (Association of Credit of Landowners in Towns of North Jutland)	13	55,800	10,091	202	28 -2-1916	1852
12	Ny jydsk Købstadkreditforening (New Credit Associa- tion of Commercial Towns of Jutland)	11,181	125,500,100	116,351,860	7,035,144	31 3 1916	1868
13	Kreditforeningen af Ejere af mindre Ejendomme paa Landet i Jylland (Association of Credit of Small Rural Proprietors of Jutland)	59,667	136,744,000	121,153,966	5,808,397	31 3-1916	1880
14	Kreditforeningen af Grundjere paa Landet i Jylland (Association of Credit of Country Landowners of Jutland)	5,255	37,231,000	33,793,876	1,614,027	31 3 1916	1893
	Total 1916 . . .	228,170	—	1,865,139,650	84,738,305	—	—
	" 1915 . . .	256,472	—	1,889,683,707	80,028,631	—	—

GERMANY.

THE BANK OF THE LANDSCHAFT OF EASTERN PRUSSIA AT KOENIGSBERG IN
1915-1916. — *Der Deutsche Oekonomist*, Berlin, 29 July 1916.

When once the pre-war conditions of administrative life had been re-established in Eastern Prussia economic life could resume a more normal course within this bank's sphere, thanks to State support and to the anticipated payment of indemnities for losses by the war. The bad harvest of 1915 certainly made recuperation slow, and agriculture had still in many respects to suffer from the measures rendered necessary by the war.

The war gave a particular character to economic life. The flocks and herds could not be maintained at their former level: in many cases it was impossible to procure manures and concentrated forage in sufficient quantities, and on the other hand the sale of live stock and agricultural products reached important dimensions. Many products which were used for production in time of peace were converted into money which flowed into the banks and savings banks. The quite extraordinary increase in the deposits of the Bank of the Landschaft of Eastern Prussia is thus explained. For the same reason a reduction was noticeable in several cases in the investments on current account and other investments, which were transferred to credit accounts; although after recurrent oscillations the total decrease was more important at the end of the year, particularly as a consequence of subscription to the war loan. The funds entrusted to the bank and the important sums paid into it by savings banks necessarily remained available owing to their particular character, and were consequently used to buy Prussian and German interest-bearing treasury bonds. At times the bank held more than 47 million marks (1) in these bonds. The issue of bills naturally decreased owing to the interest taken in the war loans. The banks could therefore grant considerable quantities of bills at moderate rates, gradually put a term to those financial operations of the Landschaft which were pending at the beginning of the war, and take back the bills issued by the Landschaft.

(1) 1 mark = 17 3/4 d. at par.

Financial Statement for the year (1April 1915-31 March 1916).

The following are some items from the profit and loss account :

RECEIPTS.

a) Profits on Title-Deeds.

1. on title-deeds themselves.	8,216.42	marks	
2. on interest on title-deeds.	526,696.57	»	
3. on commissions on operations with title deeds	66,469.96	»	
			601,382.95 marks

b) On Commission — Commission Account.

1. on advances.	17,352.20	marks	
2. on deposits.	102,613.50	»	
3. on mortgage operations.	1,199.15		
4. on sureties.	1,765.90	»	
5. on current accounts.	89,469.62	»	
6. on various receiving and banking operations.	14,201.91	»	
			226,602.28 »
			320,327.14 »

c) On Interest. — Interest Account.

d) On Discounting — Interest on Securities Account.

1. Interest on securities.	301,852.20	marks	
2. Interest on treasury bonds.	823,041.64	»	1,124,893.84 »

e) Excess Profit on Management of

<i>Real Estate</i>	47,422.83	»
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<i>f) On Credit held and redeemed . .</i>	57,700.80	»
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Total Receipts.	2,378,129.84	»
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EXPENDITURE.

a) Costs of Administration (including branches).

1. Salaries.	243,208.95	marks
2. Indemnities and costs of transcription.	194,010.03	"
3. Carriage, stamps, telegrams, telephone.	14,899.88	"
4. Printing and duplicating.	22,661.73	"
5. Heating, light, water.	13,153.74	"
6. Taxes and exchange tax.	62,527.11	"
7. Advertisement, subscriptions to news- papers.	8,671.59	"
8. Office material and binding.	14,152.73	"
9. Share in costs of the general council of the province and the commission of accounts.	76.00	"
10. Costs of meetings of general council and travelling expenses.	2,664.10	"
11. Travelling expenses and indemnities paid to officials of central establish- ment and branches.	15,796.33	"
12. Rent.	73,615.30	"
13. Costs and share in salaries of Land- schaft.	70,000.00	"
14. Various.	51,572.89	"

787,010.36 marks

b) Amortization.

on moveables.	42,482.40	"
» real estate.	126,000.00	"
» current account.	121,001.00	"
» advances »	47,110.00	"
» sureties.	10,245.00	"
various.	242,604.47	"

589,442.87 "

*c) Payments for life insurance of
employees.*

9,657.65 "

Total expenditure . . .

1,386,110.88 "

The *excess of receipts over expenditure* (profits) amounted thus to 992,018.96 marks, as against 558,313.30 marks in 1914-1915 and 742,926.32 marks in 1913-1914. Deducting the shares due to the dismorgaging funds (21,466.30 marks) and 159,160 marks due to the manager and the employees, we find that the net profits amounted to 811,392.10 marks.

This sum is distributed as follows:

1. To the bank's savings reserve fund 28,879.11 marks
2. Three quarters to the special fund of the Landschaft of East Prussia (entered on debit side of balance-sheet) 586,884.74 "
3. One quarter to the bank's general reserve fund 195,628.25 "

The Savings Bank. — The Landschaft is responsible for investments in the savings bank, which has the recognized power of receiving trust funds. It had the activity expected of it. In spite of much variation in the sums entrusted to it, owing to the investment of savings in the war loans and the subscription of 4.5 million marks to the third and fourth of these loans, the total amount of savings was increased by about one and a half million marks during the year and was at its close more than nine and a half million marks. The profits of the savings bank were much reduced by the amortization of its title-deeds. The amount of its investments was:

on 1 April 1915 (11,723 savings bank books) 8,027,701.77 marks
 on 31 March 1916 (13,509 " " ") 9,605,115.14 "
 (including credited interest amounting to 319,391.73 marks)

The savings reserve fund is invested at the Landschaft in Prussian Loan consolidated stock and in the public debt, etc.: Its amount was:

on 1 April 1915 186,097.00 marks
 on 31 March 1916 (including total profit for 1915-1916 of 28,879.11 marks) 222,779.10 "

The bank's *general reserve fund* passed during the year under review from 961,844.33 marks — including interest and the quarter of the net profits — to 1,199,426.56 marks.

The bank's *total profit* is noticeably more than in the preceding year, the increase corresponding to that in the circulation of funds and the sums on the balance-sheet. In addition to the profits realized as commissions on subscriptions to the war loans, which more than compensated for the depreciation of title deeds by the lowering of the currency, and independently of the increased profits on other commissions, the increased sum coming under the head of interest decided the results of the year. Costs of administration certainly increased noticeably, owing to the increase in taxes, in contributions to enterprises of public utility, etc. Before the bank's net profit was determined sums destined for the amortization of its buildings

and their contents were deducted. 50,000 marks was paid into the employee's pension fund, which amounted on 1 April 1915 to 100,440.67 marks and which, thanks to interest, was 104,180.67 marks at the end of March 1916. If the sum paid into it as above be included, its amount was 154,180.67 marks.

As appears from the mortgage account, real estate was mortgaged for 351,000 marks. The office for mortgage loans dealt with operations fewer by 420 than in the previous year. The bank sent to the loan funds all the correspondence and authorities received from those interested in the land register and from the creditors, so as to focus all the register's operations ; and it encouraged recourse to credit by creating second mortgages, together with loans on bills, and by granting extraordinary credits.

Part IV: Agricultural Economy in General

AUSTRALIA.

LAND SETTLEMENT AND THE PROVISION OF CREDIT IN WESTERN AUSTRALIA (*concluded*) (1)

by

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Professor of Agriculture in the University of Western Australia.

§ 3. THE PROVISION OF CREDIT.

Land, labour and capital are the elements of production. With his own hands the settler in Western Australia usually provides his own labour, and the government supplies the land on easy terms ; it also goes a very long way indeed to finance the farmer by means of loans.

The Bank Acts. — By the Agricultural Bank Act, 1894, a bank was established for the purpose of promoting the occupation, cultivation and improvement of farm lands within the State. This Act with a number of subsequent amendments was repealed by a consolidating Act in 1906 which placed the bank on a new footing. Under the new Act the bank was placed under three trustees appointed by the governor in whom is vested the whole of the bank property. The necessary funds are chiefly provided by the issue of mortgage bonds to the Government Savings Bank at a rate not exceeding 4 per cent. At later dates they have been partially

(1) See the first part of this article in our issue for December 1916.

derived from the General Loan Fund at a slightly higher rate of interest. Since its re-constitution under the new Act, the operations of the bank have rapidly increased. The amount authorised to be raised under the 1906 Act was £1,000,000 but by amending Acts of 1907, 1909, 1910, 1912, 1913 and 1914 its capital has been successively raised to its present level of £4,500,000.

Objects for which loans are granted. — Under the consolidating Act of 1906 advances were made to settlers, if the trustees thought fit, for specific objects such as ring-barking, clearing, fencing, draining, water conservation, discharging existing mortgages, also the purchase of stock for breeding purposes. Purchase of machinery was added later. Advances to any individual could not exceed £500. Under an amending Act, 1912, the provisions were extended in various directions and now read as follows: — « Subject to the provisions of this Act the bank may make advances to persons engaged in the business of farming or grazing, or in agricultural, horticultural or pastoral pursuits, to an amount not exceeding £2000, or in any industry that the governor may by proclamation declare to be a rural industry, for any purpose incidental to or in aid of any such business, pursuit or industry, including the erection of a dwelling house for the borrower on any land occupied or used by him in connection with such business, pursuit or industry ». As a matter of fact, however, the main objects for which loans are granted are those named in the original Act. The maximum limit of loans has been greatly increased.

Agricultural bank methods. — Applications for loans must be made on a prescribed form and contain full particulars of the objects, such as clearing, fencing, stock, machinery, etc., for which the advance is required.

Each application must be accompanied by a fee of 1 per cent. of the sum applied for. Loans are granted for sums of £25 or any multiple thereof, but at no time shall the advances to any one person exceed £2000. The security taken by the bank is a first mortgage over the property. A bill of sale by way of collateral security is required over all stock and machinery purchased with the bank's funds. Mortgages are prepared free of charge to the borrower, but the latter are required to pay the statutory fees for registration of their securities, amounting to a few shillings. The whole amount of an approved loan need not be paid at once, but progress payments are made against improvements on the certificates of approved neighbouring landholders. This last provision has sometimes been abused. The minimum instalment of a loan payable at one time is £10.

Relation of bank to the settler. — The contact of bank and borrower begins with the occupation of the land, but crown lands being valued and classified prior to selection, the bank is enabled to give an opinion quickly before the settler selects the land. While the trustees are empowered to fix advances on land, it is not obligatory on them to do so in every case. They may use their own discretion when the security is considered unsafe either on account of the inferior quality of the land, inadequate area for maintenance of a home, situational disadvantages, or, in the case of special advances, low sale value or insufficient development. Needless to say,

selectors almost invariably choose a block which will carry an advance from the bank. Loans, once made, are only liable to recall for breaches of the mortgage covenant.

Rates of interest, surrender of securities etc. — Loans made for improvement purposes carry interest at the rate of 5 per cent. per annum. The rate chargeable on advances made for other purposes, such as stock, machinery etc., is 6 per cent. per annum. Interest is calculated on the daily balance and is payable on the first day of January and the 1st. of July in each year. A closing fee of 10s. 6d. is payable on the discharge of every mortgage, and a production charge of 5s. is made in connection with the lodgement of documents of title for the registration of outside dealings.

Currency of loans. — All loans made against improvements have a currency of thirty years, and are amortisable by fifty equal half-yearly instalments, the interest only being payable for the first five years. Stock and machinery loans are repayable by ten equal half-yearly instalments commencing three years from date of making the advance. It is, however, the privilege of the borrower to repay the whole or any portion of the loan at any time without notice.

A typical transaction. — The following entries in connection with an advance to a settler in the Coorow district will serve to illustrate the nature of the improvements effected and the system of progress payments. Every inducement is offered to the new settler by prompt progress payments, so that on taking up land he may immediately find employment as his own master.

TRANSACTIONS IN CONNECTION WITH LOAN OF £500.
COOROW DISTRICT.

1st. Loan, £125 approved.

Date	Payments	Improvements
29-7-08	£30	Well, 35 ft.
26-8-08	25	Fence, 80 chains, 6 wires at 6s, 6d.
8-10-08	20	Fence, 53 chains, 6 wires at 6s. 6d.
—	—	Ring and scrub 70 acres at 3s, 6d.
3-10-10	15	Clearing 10 acres.
—	—	Ring and scrub 30 acres.
17-5-11	35	Clearing 35 acres.
	£125	

2nd. Loan approved.

26-9-10	44	Fencing 147 chains, 6 wires at 6s.
9-1-11	146	Clearing 10 acres at 20s.
21-2-11	60	Clearing 140 acres at 20s.
—	—	Fencing 150 chains, 6 wires at 6s.
4-4-11	25	Fencing 103 chains, 6 wires at 6s.
—	—	Well, 28 ft. timbered.
	£275	

3rd. Loan approved.

2-3-11	100	Mares
------------------	-----	-------

Total . . . £500

Stock and machinery loans are granted in the wheat areas only when 250 acres, worth 20s. per acre, have been cleared and rendered fit for the plough. Loans for the purchase of stock and machinery are limited to £100.

Extent of the bank's operations. — The following statement, compiled from the annual report of the trustees, shows the total amounts advanced to farmers up to 30 June of each of five years, the amounts repaid and the outstanding balances at the same dates.

TABLE VII. — *Operations of agricultural bank 1910-14.*

	1910	1911	1912	1913	1914
	£	£	£	£	£
Advances to date	1,257,082	1,540,241	1,946,184	2,582,937	3,089,575
Repayments to date	321,122	563,430	665,452	698,980	757,624
Outstanding Balances	935,960	976,811	1,280,732	1,883,957	2,331,951

With the wider objects for which the bank now grants loans, the greater maximum advance made possible by the amended (1912) Act, and above all owing to the greater number of settlers, the operations of the bank have steadily increased during recent years.

Purpose of the bank loans. — Advances may be made for effecting certain improvements already referred to, and also to a more limited extent for the purchase of stock or implements. Advances may also be made to lift existing mortgages to private institutions to an amount not exceeding three fourths of the value of the improvements already made on the holding, but purchase money is not regarded as a liability under the Act. The following table shows the various purposes to which bank advances were applied during the year ending June 1913. The last column of the table shows the total amount which had been expended on the several objects up to date.

TABLE VIII. — *Purposes to which bank advances were applied.*

	For year ending 30 June	Total amount to date
Liabilities taken over.	£124,056	£231,353
For purchase of stock	67,941	246,495
For purchase of plant	—	6,494
For purchase of implements	9,732	14,578
For purchase of fertilisers.	—	3,278
For developmental purposes	435,024	2,080,739
	£636,753	£2,582,937

The amount spent on the development or improvement of farms covered a variety of items. As usual the estimated value of the improve-

ments was considerably greater than the bank advances given to effect them. Table IX taken from the report shows the value of these improvements during the same year. The last column also shows the value of the several improvements effected by the help of the bank up to date.

TABLE IX. — *Improvements effected with the assistance of bank funds.*

	For year ending 30 June		Total amount to date	
	acres	costing	acres	costing
Clearing	285,350	£ 289,066	1,174,521	£ 1,471,636
Cultivating	360	110	214,398	120,572
Ring-barking & scrubbing	338,816	97,429	1,706,435	246,472
Fencing	chains 227,815	68,145	chains 1,452,918	429,782
Draining		286		5,945
Water supply		35,096		138,615
Buildings		3,207		87,075
Orchard			acres 321	4,321
Blackboy & poison grubbing	acres 10,529	1,606		13,786
		£494,945		£2,518,204

Proportion of loans granted. — During the year ending 30 June the board of trustees held fifty meetings and dealt with 4,009 applications from new and old clients, aggregating £923,885. The loans authorised numbered 3,442 involving a sum of £660,765. Of these, sixty-three applications representing the sum of £111,159, were subsequently cancelled at the applicants' request, and undrawn loans to the value of £155,734 were also cancelled, leaving a net capital appropriation of £493,872 for the year. Applications amounting to £184,255 were declined in full.

Number of clients. — The accounts closed during the financial year 1913 aggregated 133 as against 461 for the preceding term. New accounts to the number of 1358 were opened, making the total number of accounts, current as on 30 June, 8326, and the average amount of borrowers' balances £226 5s. 6d.

Loans to farmers in other States. — In each of the Australian States the local government has established a system under which financial aid

is rendered to the farmers. In every instance the scale of operations has steadily increased in magnitude during recent years, and in 1914 involved a large outstanding balance. The position of Western Australia relatively to the other States will be gathered from the following tables which are compiled from figures furnished by the Government Savings Bank of Victoria.

TABLE X. — *Government advances to farmers (1909-10 to 1913-14).*

State	Aggregate advanced to 30 June				
	1910	1911	1912	1913	1914
N. S. Wales (1)	1,362,853	1,617,192	1,948,885	2,423,955	3,531,263
Victoria.	2,657,713	2,797,323	2,954,618	3,208,903	3,491,008
Queensland	235,793	306,944	430,403	623,498	851,600
S. Australia (2)	1,544,946	1,786,762	2,064,583	2,370,076	2,601,450
W. Australia	1,257,082	1,540,241	1,946,184	2,582,937	3,089,575
Tasmania	9,187	14,610	18,636	23,915	41,004
Commonwealth	7,067,574	8,063,072	9,363,309	11,233,284	13,605,900

(1) *For years ending December prior, except for year 1914.*

(2) *Includes loans to other producers and to local bodies on the security of their own rates.*

All of the States have made heavy advances to their farmers. Deducting the amounts of loan moneys repaid in the several States at different dates from the amounts advanced, the outstanding balances have been estimated. The facts are stated in Table XI.

TABLE XI. — *Government loans to farmers (1909-10 to 1913-14).*

State	Balance outstanding at 30 June				
	1910	1911	1912	1913	1914
N. S. Wales (1)	(2) 795,113	928,086	1,074,358	1,396,336	2,297,981
Victoria	(2) 1,308,425	1,306,657	1,343,834	1,511,798	1,676,432
Queensland	163,640	206,997	305,652	470,795	636,790
S. Australia (3)	710,316	819,818	966,670	1,150,020	1,264,417
W. Australia	935,960	976,811	1,280,732	1,883,957	2,331,959
Tasmania	8,521	13,561	16,592	21,089	36,965
Commonwealth	3,921,975	4,251,930	4,987,838	6,433,995	8,244,544

(1) *At 31 Dec. prior, except in 1914.*(2) *After deduction of special principal payments in advances.*(3) *Includes balances to farmers, and other producers and to local bodies on the security of the rates.*

At the latest date for which returns common to the States are available, Western Australia had greater outstanding balances with its farmers than any other State.

Loan operations relatively to number of farms. — When the loan operations of the bank are contrasted with those of the other States, the figures become still more striking when account is taken of the actual number of farmers in the various States. In Table XII are stated the total number of holdings of all sizes alienated or in process of alienation in the several States in 1914, the outstanding loan balances in the same year, and finally the amount which each farm would carry if the balance in each State were equally distributed among the holdings. The data for Queensland are not available.

TABLE XII. — *Government loans and number of holdings (1914).*

State	Number of holdings	Balances outstanding £	Calculated loan advance per holding £
N. S. Wales	92,665	2,297,981	24.8
Victoria (1)	66,811	1,511,798	22.6
S. Australia	21,369	1,264,417	59.2
W. Australia	15,620	2,331,959	149.3
Tasmania	13,371	36,965	2.8

(1) 1913.

Such a comparison gives a general view of the situation, but lays no claim to completeness. It embraces all holdings irrespective of size, and some States have a greater preponderance of small holdings than others. Examination of the details show that Western Australia has relatively somewhat fewer of the smaller sizes than the older States. Its differences in this respect, are, however, trivial when compared with the proportionate advance per holding, and it is clear, therefore, that in proportion to their numbers, the government there has gone much further in providing credit for its farmers than have those of the sister States.

Newness of farms in Western Australia. — The results found in the preceding paragraph pay, at first sight, a poor compliment to the farming conditions prevalent within the State. It should be recollected, however, that agriculture in Western Australia is very largely a new development, and that its operations (Table I.) and its number of holdings (Table VI) have increased with great rapidity during recent years. The newness of its agriculture is also indicated by the rapid increase in the area of its lands already alienated or in the process of alienation (Table V). This increase is not only relatively, but also absolutely, greater than the corresponding increase in any other State. This can be seen from the following statement where the total area of land alienated and in process of alienation is stated for each State at 1901 and again at 1913 - the last year for which complete data are available.

TABLE XIII. — *Lands alienated and in process of alienation in the different States at different dates.*

State	Lands alienated & in process of alienation		
	1901	1913	Increase in 12 yrs
	acres	acres	acres
N. S. Wales	48,039,242	57,818,023 (1)	9,778,781 (2)
Victoria	23,797,226	31,171,956	7,374,730
Queensland	16,325,132	26,081,018	9,755,886
S. Australia	8,088,897	12,451,709	4,362,712
W. Australia	9,585,144	21,362,546 (1)	11,777,402 (2)
Tasmania	4,893,961	6,341,817	1,447,856

(1) *To 30 June.*(2) *In 11 ½ years.*

Government loans are not intended to bolster up incompetent farmers in old settled districts, but to finance new enterprise and open up new fields for the settler. Regarded in this light, the table shows that of late years Western Australia has taken a lead in the establishment of new farms, and consequently has had heavy demands made upon her credit. Reference to Table XI shows that at the date of the latest returns her existing loans to settlers exceeded those of any other State.

§ 4. CONCLUSION.

Land settlement has proceeded in the State with great rapidity partly for technical and economic reasons previously discussed, but very largely also as a result of the vigorous land policy of successive governments, and the liberal character of its agricultural loans. Whether in certain instances its land policy has been too vigorous and its loan system too generous, are matters with which this article is not intended to deal. Its object is to record facts. Present indications suggest that the loan policy will be modified at an early date owing to the growing stringency of the money market resulting from the war.

Effect of curtailing loans. — Should the loan policy of the government be curtailed for the reason stated, it is possible that a number of new settlers, possessing no resources other than their credit with the bank,

may repudiate their obligations and abandon their holdings. This is the prime danger of a generous loan policy which, if carried too far, may defeat its own end. The bank holding the mortgage can, of course, sell any properties reverting to it with the improvements thereon. As the advances were made against the improvements, it need not necessarily incur loss. It may do so, however, and it will lose the settler. During 1914, eighty securities reverted to the bank in this way, fourteen unsold properties were carried over from the previous year, and sixty were resold, within the year. If the bank's operations must necessarily be curtailed, the number of those resales is almost certain to increase in the future.

Prospects for the future. — Under the conditions indicated, a premium will be placed upon the possession of private capital by new settlers seeking for land in Western Australia. At the present time good wheat lands are very appreciably cheaper there than similar lands in the eastern States. Should a period of temporary depression now supervene, in the event and as the result of curtailments by the bank, the difference will become relatively greater. Depreciation of land values in the west can be only temporary. At the time of writing the wheat yield of the State for 1915 is officially estimated at 13.5 bushels per acre over a record area. A factor likely to affect prices in the future and promote settlement is the opening of land connection with the eastern States over the trans-continental railway promised for the close of the present year.

RUSSIA.

THE RESULTS OF INTERIOR COLONIZATION IN FINLAND.

(Concluded) (1).

§ 5. THE COMPONENT PARTS OF THE PROPERTY OF COLONISTS.

Having distinguished between the two factors in colonization in Finland, the man and the land, and studied them in every aspect, we will now turn our attention to the results of their joint action, and the question of whether or to what extent they advance the work of colonization. We will do it best by inspecting more closely the individual forms of capital which go to make the complex assets and liabilities of farming and also the capital invested in households, secondary businesses and the like. From the increase and decrease of such capital and groups of capital, from the changes suffered by all assets from the time the colonists' lots were taken over until the close of the enquiry, we will attempt to construct a picture of the results attained by the new Finnish colonists and of their limitations. We will examine the component parts of the property in the order in which these were placed at the end of § 2.

1. *Capital in real estate of the farms.*

The capital in real estate is composed of capital in land, capital in soil and capital in buildings.

a) *Capital in land.* When the lots were taken over the average gross price a hectare (2) for the total 219,628 hectares comprised by all the land of the colonies, and for the appurtenant buildings, woods and hunting and fishing rights, varied according to the grant from 77 to 136 Finnish marks (3). The average price a hectare in the seven colonies investigated was, as we have already seen (4), 86 Finnish marks, that is 22 per cent less than the general price. The price of land was of course distinctly higher in the case of torp holdings which had already been long settled before the beginning of the

(1) The first part of this article appeared our issue for November 1916.

(2) A hectare = 2 acres 1 rd. 35.383 pos.

(3) 1.2611 Finnish marks = 1s at par.

(4) *International Review of Agricultural Economics*, November 1916, page 119.

colonizing enterprise, than in that of the newly allocated lots: it was in the case of the former, according to facts furnished by the Finnish lease offices (Helsingfors 1915), 642 marks for a hectare of arable land near the demesne land of the estate, and varied according to its situation from 423 to 783 Finnish marks. For abandoned torp lands the price varied from 328 to 528 Finnish marks. For meadowland near the demesne land of the estate an average price of 333 Finnish marks a hectare was paid and for meadows somewhat remote that of 239 Finnish marks a hectare. The average price for a hectare of woodland was, according to its situation in relation to the demesne land of the estate and according to the grant, from 163 to 125 Finnish marks. A comparison of these prices with those obtaining in Russia proper when the new agrarian reforms were carried out, or those accompanying the colonization of new lands in other countries, shows that hitherto colonizing enterprise in Finland has succeeded in securing land at relatively low prices, and shows too the circumstance, connected with this one, that the prices of land in Finland are as yet generally lower than in other countries.

During the time of the enquiry the following alterations took place in capital in land. By the inclusion of woodland the possible taxable value of arable and meadowland in the investigated colonists' lots rose by 37 Finnish marks a lot.

As a result of permanent improvements — such as breaking new land and clearing it of stones, the construction of larger drainage ditches, the laying out of gardens, the addition of loam to moorland soil — the capital in land increased in value by 176 Finnish marks a lot.

Altogether the value of the capital in land rose during the time of the enquiry by 18,113 Finnish marks, an average of 213 Finnish marks a lot, or of 8.95 Finnish marks per hectare of arable and meadowland. The average yearly increase in the value of the land of the colonies was 44 Finnish marks for each lot, 7 Finnish marks of this sum having arisen by an extension of area at the expense of woodland and 37 by permanent improvements of the soil.

b) *Capital in soil.* According to the author's investigations the most important part of capital in soil consists of the value of manure. When the land was taken over the total value of the manure was 76.2 per cent. of that of the capital in soil; at the end of the enquiry it was 58.3 per cent. The relative value of the manure was lower when the enquiry closed than when farming began because the earlier computation was made in spring, the later on 1 July.

The total capital value and the percentage of it represented by manure varies not only in the different colonies but even more in the different lots within one colony. This is because some lots were made on settled land, previously cultivated and therefore more or less manured; while others were made on virgin soil. The succession of crops has contributed to the same end.

The total value of the stock in cultivated soil when the lots were taken over averaged 411 Finnish marks a lot, and 1,161 Finnish marks on 1 July. The total increase in capital value during the period of enquiry amounted

to 69,779 Finnish marks, namely an average of 750 Finnish marks a lot, or 155.38 Finnish marks for a hectare of arable land and 67.36 Finnish marks for a hectare of arable and meadowland. A relative diminution of capital in soil is to be noted in Koskipää colony, where owing to the remoteness of the arable land, as compared with the other colonies, and the prevalence of the three field system, the live stock could not be increased as much as elsewhere. The increase in value of capital in soil, both annual and total, can be seen from the following table.

Increase in Value of Capital in Soil.

Components of Capital in Soil	Total increased Value Finnish marks	Annual increased Value					
		By lot		By hectare of arable land		By hectare of arable and meadowland	
		Finnish marks	Percent.	Finnish marks	Percent.	Finnish marks	Percent.
<i>In a number of years.</i>							
Total value of manure	30,952	87	50.6	8.54	42.7	7.55	49.2
Costs of clearing ditches	2,537	6	3.5	0.94	4.7	0.60	3.9
Costs of laying out clover grass fields . . .	2,744	7	4.0	0.92	4.7	0.60	3.9
Costs of transporting loam	1,187	3	1.7	0.34	1.7	0.25	1.6
<i>In one year.</i>							
Costs of labour . . .	13,431	35	20.5	4.57	22.8	3.23	21.1
Seeds	11,275	30	17.4	4.15	20.8	2.77	18.1
Manures.	1,635	4	2.3	0.52	2.6	0.34	2.2
Total . . .	63,779	172	100.0	19.98	100.0	15.34	100.0

The annual increase in value of the capital in soil averaged 172 Finnish marks for a single lot, 19.98 Finnish marks for a hectare of arable land, and 15.34 Finnish marks for a hectare of arable and meadowland taken together.

If the lots be classified according to their size the capital in soil at the end of the period of enquiry is found to average as follows for one hectare of arable land :

In lots having an area of less than 2.5 hectares	—	350	Finnish mks. for 1 hectare
" " " " " " from 2.5 to 5 "	—	201	" " " " " "
" " " " " " 5 " 7.5 "	—	158	" " " " " "
" " " " " " 7.5 " 10 "	—	155	" " " " " "
" " " " " " 10 " 15 "	—	161	" " " " " "
" " " " " " 15 and more "	—	173	" " " " " "

Thence it appears that the value of the capital in soil in the smaller holdings, those of less than 5 hectares, is relatively greater than it is in the larger farms; a circumstance due, according to the author, to the fact that on the smaller holdings live stock is relatively more numerous than on the large farms.

c) *Capital in buildings.* When the 85 lots which were investigated were taken over the value of the capital in buildings was as follows:

Buildings appurtenant to the lots.	17,660	Finnish marks
Buildings taken over with the land	39,801	" "
Taxable value of sites of premises and of roads . .	630	" "
<hr/>		
Total . . .	58,091	" "

On 1 July 1912 the value of such capital had risen as follows:

Buildings	187,867	Finnish marks
Taxable value of sites of premises and of roads	1,299	" "
<hr/>		
Total . . .	189,166	" "

Thus the total increase in value was 131,075 Finnish marks. If the average for a single lot be calculated it is found to be as follows:

When the lots were taken over. —

Buildings appurtenant to them	208	Finnish marks
Buildings taken over with the land	468	" "
Taxable value of sites of premises and of roads. .	7	" "
<hr/>		
Total . . .	683	" "

On 1 July 1912.

Buildings.	2,210	Finnish marks
Taxable value of sites of premises and roads . .	15	" "
<hr/>		
Total . . .	2,225	" "

The average increase in value on a lot is therefore 1,542 Finnish marks.

These figures are to be regarded as representing the addition made to the value of the capital in buildings solely by the colonists' activity in farm-

ing their holdings during the period of the enquiry. The market value of the buildings — the effect of a general rise in prices — has been disregarded in accordance with the aim of the whole enquiry as already stated.

As regards single colonies the increase in value of capital in buildings was greatest in Seppälä, where it averaged 2,758 Finnish marks a lot ; and least in Nipuli, the average there being 427 Finnish marks a lot. The number of dwelling houses on the 85 lots investigated was 98 and they comprised 224 rooms. Thus there was an average of 2.5 weather-tight rooms for each lot and 2.3 for each dwelling house. An average of 255 cubic metres, measurements being taken outside, was devoted to dwelling house room on each lot, namely 236 cubic metres to living-rooms and kitchens and 19 cubic metres to masonry. On an average 2.2 members of a family inhabited each living-room, 1.7 being over twelve years old.

In all the 85 lots there were 188 stables and byres, that is an average of 2.2 a lot. This average is high because, as already stated, many colonists' lots have arisen out of earlier torp holdings which usually included several buildings.

The buildings for storage comprised, when measured from outside, an average of 62 cubic metres for each lot, storerooms, granaries and cellars being included.

The value of buildings averaged for each member of a family 175 Finnish marks, or 270 for each of such of them as were over twelve years old. The author observes that these figures represent very low values even according to Finnish standards ; and that in the case of capital in buildings, as in that of capital in land, colonizing enterprise in Finland has succeeded in keeping costs very low, especially where it has been possible to buy up older buildings cheaply.

2. *Farming Capital.*

The farming capital of the colonists can be analysed as capital in machines and implements, in live stock, in other stock, in shares in the co-operative funds and in cash. We will briefly consider these components individually.

a) *Capital in machines and implements.* When the colonists' lots were taken over the machines and implements were worth 15,642 Finnish marks. During the course of the enquiry their value rose to 22,439 Finnish marks and on 1 July 1912 it had reached the sum of 38,081 Finnish marks. Its greatest increase in value up to that date occurred in Seppälä colony, where it was 735 Finnish marks, its least in Nipuli colony where it was 199 Finnish marks. The average annual increase in the different classes of property forming capital in machines and implements, on a single lot and on a hectare of arable and meadowland, can be shown as follows :

	Per single lot	Per hectare of arable and meadowland
	Finnish marks	Finnish marks
Larger machines	8.15	0.74
Agricultural implements	14.25	1.33
Inventory of stables	2.40	0.20
Inventory of cow-byres	0.75	0.03
Inventory of dairy	11.30	1.03
Carts etc.	14.60	1.28
Household implements	1.75	0.14
Other implements	6.10	0.56
Total	59.30	5.31

The total value of the machines and implements increased on an average during the period of enquiry by 264 Finnish marks for each single lot or by 23.43 Finnish marks for a hectare.

If the various values of the capital in machines and implements in the investigated lots be compared with the size of the holdings, it appears that such capital is notably greater in the larger than in the smaller of these; yet when the average for a single hectare of arable and meadowland is calculated there is no great difference in value to be observed. These facts appear from the following table:

Average Cash value of Machines and Implements according to the Size of the Colonists' Lots and for 1 hectare of Arable and Meadowland.

Area of lots Arable and meadowland	No. of lots	Average value in Finnish marks	
		For a single lot	For 1 hectare of arable and meadowland
Up to 2.5 hectares . . .	2	257	115
From 2.5 to 5 " . . .	11	148	35
" 5 " 7.5 " . . .	22	368	55
" 7.5 " 10 " . . .	11	378	42
" 10 " 15 " . . .	22	501	40
" 15 " 25 " . . .	13	757	43
25 and more " . . .	3	800	20
For whole area . . .	85	448	42

b) *Capital in live stock.* The capital in live stock rose in value between the time when the lots were taken over and that at which the enquiry was completed from 53,549 to 100,190 Finnish marks. Thus the increase was one of 47,641 Finnish marks or 87.1 per cent. The average value on each lot, when taken over, of this capital was 630 Finnish marks, and on 1 July 1912 it was 1,179 Finnish marks. For a hectare of arable and meadowland the average value was 63.38 Finnish marks at the earlier and 110.37 Finnish marks at the later date. The live stock was of least value in Siikajarvi, where it averaged 651 Finnish marks a lot, and of greatest value in Koskipää, where it averaged 2,245 Finnish marks a lot. The total increase in the value of the capital in live stock averaged 549 Finnish marks a lot, varying from 145 to 983 Finnish marks in the different colonies.

If the live stock be divided into the two groups of cattle and horses, and their value from the time when the colonies were first established until the close of the period of enquiry be calculated, the average increase in their respective values on a single lot and on a hectare of arable and meadowland is as follows:

	When land was taken over Finnish marks	1 July 1912 Finnish marks	Amount of increase Finnish marks
<i>Cattle.</i>			
For a lot	429	763	334
» 1 hectare arable and meadowland	43.25	71.44	28.19
Percentage of whole capital in live stock	68 %	64.7 %	—
<i>Horses.</i>			
For a lot	201	416	215
» 1 hectare arable and meadowland	20.13	38.93	18.80
Percentage of whole capital in live stock	31.9 %	35.3 %	—

It thus appears clearly that the capital in live stock has greatly increased on the colonists' lots. The value is distributed among the groups of holdings, classified according to size, as follows:

The Capital in Live Stock on Holdings of Different Sizes.

Area of arable and meadowland	No. of lots	Average value per	
		Lot	1 hectare arable and meadowland
Up to 2.5 hectares	2	551	248
From 2.5 to 5 "	11	613	152
" 5 " 7.5 "	22	801	116
" 7.5 " 10 "	12	925	107
" 10 " 15 "	22	1,387	115
" 15 " 25 "	13	1,766	105
" 25 and more	3	3,337	90
For whole area	85	1,179	110

c) The capital in other stock.

Unlike the capital in the groups hitherto examined that in stock other than live stock has remained unaltered on the colonists' farms, and is even found to have undergone a slight diminution if its average for one hectare be reckoned. This is chiefly due to the circumstance that the inventory was taken at the end of the period of enquiry and therefore in the summer, a time when stock is notoriously at its lowest in farms. Further the beds of manure were reckoned as constituting not capital in stock but capital in soil.

In the 85 lots investigated the capital in stock was of the value of 8,882 Finnish marks, averaging 105 Finnish marks for a lot and 10.51 for a hectare of arable and meadowland. The increase relatively to the outgoings varied according to the colonies.

In Nipuli and Kaskipää colonies the capital in stock diminished in value from 103 to 80 Finnish marks a lot, while in Seppälä and Sippola it increased from 92 to 110 Finnish marks. The increase depends chiefly on the presence of woodland products, such as firewood, building materials, etc.

d) Co-operative shares and cash.

The co-operative shares of the colonists on the investigated lots were very trifling: when the land was taken over their value averaged 3 Finnish marks for a lot and, on 1 July 1912, 13 Finnish marks, giving an increase of 10 Finnish marks. In Sippola and Kaskipää such average value was almost three times that of the general average, being 27 and 29 Finnish marks, but in Muddais on the other hand there was no co-operative enterprise whatsoever.

As regards capital in cash it was naturally greater when the lots were taken over than on 1 July 1912, when the enquiry closed. The money which

the colonists brought with them came, during the time of the enquiry, to be represented by the different forms of capital invested in the farm. When the land was taken over the capital in cash amounted to 11,296 Finnish marks, averaging thus 133 Finnish marks for a lot and 13.25 for a hectare of arable and meadowland. In Koskipää the colonists possessed more than the average sum, namely on an average 224 Finnish marks a lot; in Siikajarvi the average amount possessed on a lot was less than the general average, being not more than 30 Finnish marks.

On 1 July 1912 Koskipää colony still held most capital in cash, averaging 177 Finnish marks a lot; while Nipuli, where such average was only 48 Finnish marks, held least. For all the colonies the decrease in capital in cash per lot varied from 37 to 107 Finnish marks and averaged 43. An increase in the average amount of cash held with a lot occurred only in Mudais and Siikajarvi colonies.

3. Capital not directly invested in Farming.

The changes suffered by capital not directly invested in the farms, but connected with the agriculture of the colonists and therefore influencing the course and the results of their farming activities, will be mentioned shortly.

a) The capital in household goods and implements had the following value:

When the land was taken over

Household goods	3,519	Finnish marks		
implements.	2,139	»	»	
				5,658 Finnish marks

On 1 July 1912

» goods	3,592	»	»	
implements.	5,695	»	»	
				9,287 » »

Total increase in value	3,629	»	»
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The increase is chiefly due to a multiplication of implements. The yearly increase averages 9 Finnish marks for a lot and 0.79 Finnish marks for an acre of arable and meadowland.

b) The capital invested in other businesses decreased in the course of the enquiry from 34,590 to 9,692 Finnish marks; and such decrease was made largely at the expense of the money invested in banks. When the land was taken over the savings deposits of the colonists averaged 280 Finnish marks for each lot; and on 1 July 1912 the deposits had been almost

entirely withdrawn, and the average amount remaining in the banks was for each lot only 38 Finnish marks. On the other hand the sum paid for life insurance rose during the period of enquiry from 1,020 to 1,790 Finnish marks, that is by 779 Finnish marks, an average of 9 marks for a lot.

When the land was taken over the average amount of capital invested in other businesses was 407 Finnish marks for each lot. In Muddais colony it was highest, namely 1,023 Finnish marks; in Siikajarvi it was lowest — 66 Finnish marks. In 1912 the average for a lot had fallen to 115 Finnish marks.

The author reckons as capital in other businesses that invested in accessory industries and leasehold and other rights.

c) The capital in personal belongings, such as clothes and furniture, was worth 28,484 Finnish marks when the land was taken over, giving an average of 335 marks for a farm or family. On 1 July 1912 it had not notably increased, being 33,269 Finnish marks, which gave an average of 391 marks for a family. The annual increase therefore averaged 11 marks for a lot and seems very trifling. The reason for its slightness is, according to the author, that after the lots had been taken over the colonists were much occupied in setting their farms in order and had little time in which to supply themselves with clothes, furniture and other personal possessions.

d) The service of paying woodland dues, that is woodland rents and amortization payments attached to the earlier debt with which woods were burdened, was during the period of the enquiry of the value of 30,615 Finnish marks, an average of 360 marks for a lot and of 33.72 for an acre of arable and woodland.

Payments of this description are highest in Koskipää colony where they average 1,053 Finnish marks a lot, and lowest in Siikajarvi and Nipuli where they average 214 Finnish marks a lot.

Finally as regards hereditary payments and presents these occurred in only three colonies — Siikajarvi, Nipuli and Koskipää — and amounted to 3,580 Finnish marks.

In the following table all the capital of the colonists represented by their farming, before and after the lands were taken over and on 1 July 1912, is set out.

Component	Before lands were taken over				After lands were taken over				On 1 July 1912			
	Total	Average per lot	Average per hectare of arable and meadowland	Per-centage	Total	Average per lot	Average per hectare of arable and meadowland	Per-centage	Total	Average per lot	Average per hectare of arable and meadowland	Per-centage
<i>Capital in land:</i>												
Capital in land . . .	—	—	—	—	138,805	1,574	158.35	48.1	151,918	1,787	167.33	27.1
Increased value of capital in soil .	—	—	—	—	—	—	—	—	63,779	750	70.24	11.4
Capital in buildings .	17,660	208	20.90	16.5	58,091	683	68.74	20.0	189,166	2,225	208.36	44.5
<i>Farming capital:</i>												
Machines and implements . .	15,642	184	18.51	14.5	15,642	184	18.51	5.6	38,081	448	41.94	6.8
Live stock .	53,549	630	63.38	50.0	53,549	630	63.38	19.0	100,190	1,179	110.37	17.9
Other stock .	8,882	105	10.51	8.3	8,882	105	10.51	3.2	8,909	105	9.81	1.6
Co-operative shares . .	299	3	0.35	0.2	299	3	0.35	0.1	1,177	13	1.23	0.2
Cash	11,296	133	13.25	10.5	11,296	133	13.25	4.0	7,632	90	8.41	1.7
Total . . .	107,328	1,263	126.90	100	281,564	3,312	333.09	100	560,792	6,597	617.69	100

§ 6. THE LIABILITIES OF THE COLONISTS.

During the period of enquiry into the colonists' lots not only the property but also the liabilities of the colonists underwent changes, in the manner which will now be described.

1. The State debt on the land.

When the colonists were settled the State granted the lots as bearing their full taxable value. The amount with which the farms (woodland being excepted) on the 85 investigated lots were burdened was 174,236 Finnish marks, giving an average of 2,049 Finnish marks for a lot and 206.19 Finnish marks for a hectare of arable and meadowland. This debt on the land (prior debt) has been lessened by annual payments in redemption, but on the other hand has been increased when woodland has been subjected to agriculture and the area farmed thus extended. Altogether the debt to the State has diminished only by 4,826 Finnish marks, giving for each lot an average decrease of 56 marks. These low figures are explained by the circumstance that the State, in the first years after the lots had been taken over, did not compel the colonists to make payments in redemption.

At the end of the period of enquiry this prior debt was of 169,410 Finnish marks, giving an average of 1,993 marks for a lot and 186.57 for a hectare of arable and woodland.

2. Loans from banks and private persons. Debts of this category have during the period of enquiry altered, in respect of their total amount and the average for a single lot and for a hectare of arable and meadowland, as follows :

	When the land was taken over	On 1 July 1912	Increase
	Finnish marks	Finnish marks	Finnish marks
<i>Total amount.</i>			
Debts to banks	3,010	17,475	14,465
Other debts	5,080	24,456	19,466
Total . . .	8,090	42,091	33,931
<i>Average per lot.</i>			
Debts to banks	35	205	170
Other debts	60	289	229
Total . . .	95	494	399
<i>Average per hectare of arable and meadowland.</i>			
Debts to banks.	3.56	19.24	15.68
Other debts	6.01	27.03	21.02
Total . . .	9.57	46.27	36.70

Most colonists have received credit from the co-operative funds and savings banks and only few loans from individuals. On 1 July 1912 Takkula and Nipuli colonies were most indebted to banks, their debts of this description averaging 130, increased from 57 Finnish marks, for a lot. The increase of indebtedness to banks in Nippuli is to be ascribed to the fact that nine colonists became burdened with a debt of 4,000 Finnish marks as a result of fraudulent discounting, and implicated their property in consequence.

Loans from private persons are very considerable in the colonies of Muddais (average yearly increase of 117 Finnish marks a lot), Seppälä (of 78 Finnish marks), Takkula (of 43 Finnish marks) and Nipuli (of 39 Finnish marks).

3. *Current debts.* The author reckons among these debts such as have a more accidental character and do not bear interest. Such is the credit which the country tradespeople afford for goods ordered by the colonists. These debts were relatively very great in Nipuli colony where their annual increase averaged 286 Finnish marks a lot. The average annual increase in current debts among all the lots investigated was 30 Finnish marks per lot or 2.80 Finnish marks per hectare of cultivated land.

3. *Debts incurred to the forests.* Since it was the aim of the whole enquiry to discover the action on agriculture only of such capital as was in-

vested in farming, the forest dues were reckoned among the liabilities the colonists incurred by forestry, as against the uses they made of their woodland possessions.

The total value of the forest dues from the time the land was taken over until the close of the period of enquiry was 52,434 Finnish marks. The yearly average for a lot was 138 Finnish marks, or for a hectare of cultivated land 13.05 Finnish marks. From the total sum of the forest dues 79.7 per cent. must be deducted as the value of the woodland products (fuel) and 20.3 per cent. as that of pasturage.

The firewood used on the farms is for the most part gathered from the fallen wood, and wood having a market value is seldom used as fuel. In Muddais, where there is less woodland than in the other colonies, the colonists take firewood from their wood most sparingly. It has happened that firewood has been sold by the colonists outside a colony, being transported by water. In Takkula the colonists procure their firewood from distant forests and therefore are very careful in their use of it. The costs of importing wood are a considerable burden on the farming of the colonists. The yearly value of the woodland pasturage in the different colonies for single lots is computed by the author as follows:

	<i>Horses</i>	<i>Cows</i>	<i>Sheep</i>
	Finnish marks	Finnish marks	Finnish marks
Muddais	—	22	—
Sippola	8	16	—
Siikajarvi	—	16	—
Nipuli	8	24	5
Koskipää	12	39	8
Takkula	1	12	—
Seppälä	3	9	2
Average for a lot . . .	5	21	2

The sum of inheritances and presents received by the colonists during the time of the enquiry was 5,687 Finnish marks, an average of 67 Finnish marks for a lot or 6.27 for a hectare of land.

§ 7. CHANGES IN ASSETS AND LIABILITIES AND THE NET PROFIT MADE.

The two preceding sections have given the alterations in the single assets and liabilities and the groups of these. We will now resume and compare all assets and liabilities as they were both before and after the lots were

taken over and at the close of the period of enquiry. The net profit will then appear.

	Assets Finnish marks	Liabilities Finnish marks	Net profits Finnish marks
<i>For whole area.</i>			
Before lands were taken over . . .	176,060	11,055	165,005
After " " " " . . .	350,296	185,291	165,005
On 1 July 1912	644,235	281,051	366,184
<i>Average for 1 lot.</i>			
Before lands were taken over . . .	2,071	130	1,941
After " " " " . . .	4,120	2,179	1,941
On 1 July 1912	7,614	3,306	4,308
<i>Average for 1 hectare cultivated land.</i>			
Before lands were taken over . . .	203.22	13.07	195.15
After " " " " . . .	414.41	219.26	195.15
On 1 July 1912	712.89	309.50	403.39

From this it appears that assets, liabilities and net profits were notably increased during the period of enquiry. The relative values of single assets and their alteration can be seen from the following figures;

	Before lands were taken over	After lands were taken over	1 July 1912
Farming	60.9 %	80.3 %	86.6 %
Household	3.2 %	1.6 %	1.4 %
Secondary businesses	19.6 %	9.9 %	1.6 %
Personal possessions	16.3 %	8.2 %	5.1 %
Debts recoverable by colonists .	—	—	5.3 %
Total . . .	100 %	100 %	100 %

The largest part of this property was thus bound up with farming and its proportion to the whole capital invested increased from 60.9 per cent. before the land was taken over to 86.6 per cent. on 1 July 1912.

In the individual colonies the course of this process was various, according to whether before the lots were taken over there were already farms on their sites or not. In Koskipää, Nipuli and Siikajarvi the colonists found small farms ready-made at the time of colonization, and therefore the farming capital in these places was already considerable before the land was taken over. The same holds good for Seppälä colony where most of the colonists were previously torpars. Conditions were different in the colonies of Muddais, Sippola and Takkula where, before the land was taken

over, the capital invested in secondary businesses was most important. After the lots had been taken over the class of capital previously dominant continued to form a high percentage of the whole value involved, yet the distribution of the components of capital tended to be somewhat equalized in the different colonies, except in Seppälä colony where at the close of the enquiry the farming capital was in distinctly higher proportion than in the others.

The following table makes these facts clear :

Proportionate Distribution of Component Parts of Capital invested in the Colonies.

Components of Capital	Muddais	Sippola	Sii-kajarvi	Nipuli	Kos-kipää	Takkula	Seppälä
<i>Before land was taken over :</i>							
Farming	41.1 %	54.7 %	71.6 %	74.3 %	78.6 %	60.5 %	76.1 %
Household	2.6 %	3.4 %	5.1 %	3.8 %	3.7 %	2.3 %	2.8 %
Secondary businesses.	38.1 %	24.6 %	6.9 %	6.5 %	6.2 %	17.6 %	9.1 %
Personal belongings	18.2 %	17.3 %	16.4 %	15.4 %	11.5 %	19.6 %	12.0 %
Forestry etc.	—	—	—	—	—	—	—
	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Average for 1 lot in Finnish marks	2,679	2,781	957	1,309	2,908	2,450	1,380
<i>After land was taken over :</i>							
Farming	69.3 %	76.3 %	84.9 %	86.3 %	87.6 %	78.1 %	94.0 %
Household	1.3 %	1.8 %	2.7 %	2.0 %	2.2 %	1.3 %	0.7 %
Secondary businesses.	19.9 %	12.9 %	3.7 %	3.5 %	3.6 %	9.8 %	2.3 %
Personal belongings	9.5 %	9.0 %	8.7 %	8.2 %	6.6 %	10.8 %	3.0 %
Forestry etc.	—	—	—	—	—	—	—
	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Average for 1 lot in Finnish marks	5,132	5,305	1,794	2,457	5,050	4,405	5,470
<i>On 1 July 1912</i>							
Farming	87.1 %	87.4 %	86.9 %	87.8 %	81.0 %	83.8 %	92.6 %
Household	1.7 %	1.4 %	1.5 %	1.3 %	1.2 %	1.6 %	1.2 %
Secondary businesses	1.1 %	2.5 %	0.8 %	0.1 %	0.8 %	4.7 %	0.4 %
Personal belongings	5.9 %	5.8 %	4.7 %	5.3 %	4.0 %	6.4 %	3.7 %
Forestry etc.	4.2 %	2.9 %	6.1 %	5.5 %	13.0 %	3.5 %	2.1 %
	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Average for 1 lot in Finnish marks	8,386	8,607	4,269	3,994	10,545	8,926	12,168

For the purpose of a comparison with these figures the author gives also data as to the total assets of Siberian colonists. In Popov (1) these averaged in the colonists' lots investigated by him 1,365 roubles (2) a lot, distributed as follows:

Cattle and poultry	387 roubles	—	28.4 %
Farming implements, carts etc.	322	"	23.6 %
Buildings	316	"	23.1 %
Clothes	286	"	21.0 %
Crockery and furniture,	54	"	3.9 %
Total	1,365	"	100 %

The average percentage of the liabilities in the lots investigated was as follows:

	When lots were taken over	After they had been taken over	1 July 1912
	Percent.	Percent.	Percent.
Debt on the land	—	94.0	60.3
Other debts bearing interest . .	73.1	4.3	14.9
Current debts	26.9	1.7	4.1
Use of woodland,	—	—	20.7
	100	100	100

Thus when the land was taken over debts to savings banks and private persons predominated. After it had been taken over these items became, as compared with the debt on the land, almost negligible, but on 1 July 1912 were quite noticeable. The debt on the land although at first, as we have already said, there was no obligation on the colonists to make annual payments towards redeeming it, sank from 94 per cent, to 60.3 per cent. of the total sum of the liabilities.

The oscillations of these liabilities in the single colonies appear in the following table:

(1) *Angaben über die budget-wirtschaftliche Untersuchung von 75 Übersiedlerwirtschaften in den Kreisen Kustanaisk, Aktjnbinsk und Uralsk.* Orenburg, 1911, pp. 10 et seq.

(2) 1 rouble = about 2s. 1½ d. at par.

Relative Percentage of Chief Liabilities of Different Colonies.

Liabilities	Muddais	Sippola	Sii- kajarvi	Nipuli	Kos- kipää	Takkula	Seppälä
<i>Before lands were taken over:</i>							
Debt on land	—	—	—	—	—	—	—
Debts bearing interest	59.0	30.5	44.4	99.9	100	100	100
Current debts	41.0	69.5	55.6	0.1	—	—	—
Forest dues etc.	—	—	—	—	—	—	—
Average for 1 lot in Finnish marks	100 144	100 121	100 187	100 123	100 10	100 89	100 262
<i>After lands were taken over:</i>							
Debt on land	94.5	95.5	81.7	90.3	99.5	95.6	94.0
Debts bearing interest	3.2	1.4	8.1	9.6	0.5	4.4	6.0
Current debts	2.3	3.1	10.2	0.1	—	—	—
Forest dues etc.	—	—	—	—	—	—	—
Average for 1 lot in Finnish marks	100 2,597	100 2,645	100 1,025	100 1,271	100 2,152	100 2,044	100 4,352
<i>1 July 1912:</i>							
Debt on land	66.4	72.5	39.3	50.9	53.4	53.8	69.1
Debts bearing interest	17.8	5.7	10.2	19.3	9.9	28.8	11.6
Current debts	0.5	6.8	13.1	12.5	—	—	—
Forest dues etc.	15.3	15.0	37.4	17.3	36.7	17.1	19.3
Average for 1 lot in Finnish marks	100 3,552	100 3,472	100 2,196	100 2,297	100 3,478	100 3,521	100 5,853

Altogether assets have on an average increased by 84.8 per cent. of the value of the capital when the land was taken over, and liabilities by only 51.7 per cent. When the land was taken over the liabilities amounted to 52.9 per cent. of the total capital and on 1 July 1912 to 43.4 per cent. The debts have increased relatively only in Nipuli colony, namely from 51.8 per cent. to 57.5 per cent. Yet even here there was an increase of net profit. The increase of debts was to that of assets in the ratio of 32.3 to 100.

For one hectare of cultivated land the average increase of assets is valued at 298.48 Finnish marks, that of liabilities at 90.27 Finnish marks.

As the size of the farms increases so does the amount of both the assets and the liabilities, yet if the average for one hectare of cultivated land be calculated it is found that both decrease with the size of the farms.

The yearly increase of assets and liabilities in the single colonies appears from the following figures :

Average assets for a lot.

In Seppälä	yearly increase of	1,252	Finnish marks
" Sippola	" " "	987	" "
" Takkula	" " "	847	" "
" Muddais	" " "	751	" "
" Siikajarvi	" " "	741	" "
" Koskipää	" " "	665	" "
" Nipuli	" " "	455	" "

Average liabilities for a lot.

In Siikajarvi	yearly increase of	349	" "
" Nipuli	" " "	306	" "
" Seppälä	" " "	281	" "
" Takkula	" " "	277	" "
" Sippola	" " "	247	" "
" Muddais	" " "	220	" "
" Koskipää	" " "	162	" "

Additional figures will answer a question which has great interest for the whole enquiry. What was the colonists' net profit from the time the lots were taken over until 1 July 1912? The difference between the assets and liabilities gives this information:

In Seppälä	yearly increase of	971	Finnish marks, i. e. 5.33 a year
" Sippola	" " "	740	" " " 3.33 " "
" Takkula	" " "	570	" " " 5.33 " "
" Muddais	" " "	531	" " " 4.33 " "
" Koskipää	" " "	503	" " " 8.17 " "
" Siikajarvi	" " "	392	" " " 3.33 " "
" Nipuli	" " "	149	" " " 3.33 " "

This order is almost exactly that in which the colonies stood to each other in respect of their assets ; except that Siikajarvi and Koskipää colonies have changed places, the former from the fifth to the sixth place, the latter from the sixth to the fifth.

It is also interesting to establish the number of the colonists as compared with the increase in net profits, classified according to its extent, when the land was taken over and on 1 July 1912 :

Increase in net profits		When land was taken over.		1 July 1912	
		Number of Colonists	Average in Finnish marks	Number of Colonists	Average in Finnish marks
Up to 500	Finnish marks	8	312	3	366
From 500 to 1,000	" "	21	735	3	833
" 1,000 " 1,500	" "	15	1,245	9	1,233
" 1,500 " 2,000	" "	12	1,735	8	1,826
" 2,000 " 2,500	" "	7	2,328	6	2,237
" 2,500 " 3,000	" "	6	2,705	8	2,810
" 3,000 " 4,000	" "	3	3,239	8	3,651
" 4,000 " 5,000	" "	9	4,489	10	4,381
" 5,000 " 6,000	" "	4	6,234	9	5,599
" 6,000 " 7,000	" "	—	—	7	6,337
" 7,000 " 8,000	" "	—	—	2	7,404
" 8,000 " 9,000	" "	—	—	6	8,469
" 9,000 " 10,000	" "	—	—	1	9,368
10,000 and more	" "	—	—	5	11,640
Average . . .		85	1,941	85	4,308

From this table it appears that the large number of colonists whose net profits when the land was taken over were between 500 and 2000 Finnish marks, was notably increased before the close of the enquiry. The colonists having net profits between 2000 and 6000 Finnish marks also became more numerous, in spite of the number whose profits came to be from 6,000 to 10,000 Finnish marks and more.

§ 8. INTEREST, WAGES OF LABOUR AND WAGES OF ENTERPRISE.

After he has shown the total results of the colonists' farming and the total increase of their property, the author seeks to describe the origin and constitution of this increase. As has been stated several times the ground rent is not included in the net profits of the colonists as here established by the author. The net profits have three constituents: interest on the capital invested in the farm, wages for the colonists' agricultural labour and wages for their enterprise.

As to the last two of these constituents it has been impossible to determine them because there are no data from bookkeeping and calculable

facts as to the part taken by the colonist families in the work on and outside the farms, and the returns of the farms to the families. It has been possible to calculate only the interest on the capital invested in the farms. As the result of the enquiry into the net profits of the 85 lots they have been, from this point of view, classified in three groups. The first group includes five colonists' farms which have suffered a reduction of capital: namely two in Muddais where such reduction has been of 1 per cent. and 4 per cent., and three in Nipuli where it has been of 2 per cent., 6 per cent. and 34 per cent.

The second group includes two farms which show at most a net profit of 5 per cent. on the capital invested in them. They are a colonist's lot in Nipuli and one in Koskipää on which the yearly increase is 2 per cent. of the capital.

The third group comprises 78 farms of which the capital has increased annually by 5 per cent. or more of its amount. In this group the colonists' farms have made a return not only of such 5 per cent. interest on capital but also of a surplus, distributed among the lots as follows:

Number of lots	Amount of surplus calculated for a lot					Average
27	Up to 200 Finnish marks					115 Finnish marks
20	From	200	»	400	»	318
12	»	400	»	600	»	511
9	»	600	»	800	»	710
7	»	800	»	1,000	»	915
3	»	1,000	»	and more	»	1,088

If the proportions obtaining within single colonies be studied the surplus, after 5 per cent. interest on capital has been deducted, is found to be as follows:

Name of Colony	Amount of surplus on a lot					Average for 1 lot
Nipuli	15	to	358	Finnish marks		84 Finnish marks
Koskipää	77	»	714	»	»	284
Siikajarvi	82	»	550	»	»	314
Takkula	23	»	937	»	»	396
Muddais	43	»	1,101	»	»	407
Sippola	74	»	1,070	»	»	565
Seppälä	472	»	1,094	»	»	783
Average for whole area .	15	to	1,101	Finnish marks		355 Finnish marks

The annual gross profits of the colonists' farms are employed as follows :

- 1) the colonists' families have their livelihoods ;
- 2) they discharge their liabilities ;
- 3) they receive 5 per cent. interest on the capital invested in the farm, household and secondary businesses as well as
- 4) a yearly surplus averaging 355 Finnish marks for a lot.

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* *

The author also endeavours to bring the amount of the net profits, as these vary with time, into relation with the factors influencing the farming of colonists, in order thus to establish a certain relation of cause and effect between these factors and the increase in the value of the property. General conclusions cannot here be drawn because the material for research and the data derived from bookkeeping are relatively too slight. It has been possible to discover only a tendency and to offer a cursory introduction to later studies.

Next the size of the lots is considered, and the absolute conclusion is at once made that the yearly increase in net profits rises with an extension in the area of the farms. But the development shows a tendency to an equalization of net profits with the original net profits of the time when the land was taken over.

If taken absolutely the original net profits are directly related to the yearly increase : the greater they are, by so much the greater are the yearly net profits. If taken relatively the increase is found to be greater in farms which had at first little value.

The available labour power in colonists' families has not notably influenced either absolutely or relatively the yearly increase in net profits. If the family be large it uses a proportionately large amount of the farm products, and various of its members must find exterior employment which seldom offers opportunities for saving. The amount of consumption and the available labour power of the families have however influenced the annual increase of net profits in the sense that the latter is proportionate to consumption. This relation, the connection between the growing value of the property and the needs it supplies, cannot be explained by the material of the enquiry.

The relation of the net profits to the different origins of single colonists' farms is shown as follows. The highest annual increase in value, absolute and relative, occurs in farms established on former sites of the dwellings of cottagers and labourers. Next come such farms as stand on land previously cultivated but having had no buildings ; thirdly the farms formed on land which had not been cultivated previously ; and lastly those on the sites of the labourers' leaseholds, the earlier torps, which show the least increase in annual profits.

Here also no general conclusions can be made ; first because the number of the investigated lots is too small ; and secondly because the effects

of this factor of the origins of the farms is influenced — strengthened or weakened — by other forces. Thus most of the torps — 31 of them altogether — lie in the colonies in which farming is at its weakest, namely in Nipuli and Koskipää.

The circumstance is nevertheless noteworthy that the yearly increase in value of the farms on the entirely new sites is higher than that of those occupying the sites of torps.

CONCLUSION.

We will now briefly resume all that is contained in the foregoing paragraphs.

The enquiry into the lots colonized by peasant smallholders has very indubitably given the information that the colonizing enterprise of the State has been crowned with success. By the institution of an especial credit fund for the landless population, by furnishing the colonists with cheap land credit, by the formation of a lease office, and by enlisting the aid of co-operation for the purpose of acquiring land, colonizing enterprise has succeeded in strengthening the position of the colonists as farmers of the lots they have acquired, in providing them with a sure livelihood, and in attaching them to their native soil. The happiness which once they sought over seas, which once called them to America, that belauded country, they now find more easily within their own land. Naturally much energy, activity and intense industry is demanded of the colonists : but nowhere can a man advance himself if he keep his hands in his pockets ; and from the social point of view the efforts which colonists must make on the land are certainly not more injurious to them than those incumbent on workers in factories and State industries. There must be economy, every step forward must be accompanied by economical housekeeping, if the development of a colonist's lot is to be at all reasonably profitable. But the awakening of an agricultural sense, the education in thrift especially of the unendowed populace — these constitute, as the author observes, so lofty, so important and so educational an aim, that it alone gives great significance to colonizing enterprise.

When the new State colonizing enterprise in Finland was initiated Professor Hamer Gebhard (1), the well-known creator of the Finnish co-operative movement, wrote as follows :

“ There are too many families in Finland who own neither land nor house. There are at the same time vast extents of uncultivated territory of which part might be cultivated... It behoves that with the help of capital these two factors, the *man* and the *land*, be united : the result will be for

(1) *Atlas de statistique sociale sur les communes rurales de Finlande en 1901*. Helsingfors, 1908. p. 27.

Finland such hitherto unsuspected strength and new wealth as will contribute to making a better future for the country. It should be mentioned that the government and the representatives of the nation have taken this problem seriously, and they will doubtless find for it in the near future a happy solution".

It is with satisfaction that we can state that this prophecy already begins to be fulfilled and that colonizing activity has already borne good fruit. It has led, as we have seen, to a progressive development of the property of the colonists, and in so doing has indicated the lines which the colonizing policy of Finland should follow in the future.

SERBIA.

THE QUESTION OF FORESTRY IN THE KINGDOM OF SERBIA.

OFFICIAL SOURCES :

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VASIC (D. M. S.) : Наше шуме (*The Serbian Woods*). Belgrade, 1904.
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Before examining the condition of sylviculture in the kingdom of Serbia it is necessary to note the two following facts :

1) Sylviculture in Old Serbia, that is within the land of the kingdom as it existed before the Balkan Wars, differs somewhat from sylviculture in the recently occupied country in respect of the wooded territory, the quality of the timber and the method of cultivating it.

2) All statistical data as to sylviculture in Old and in New Serbia have not the same value. Some are certainly very precise and very detailed, but others are summary and approximate.

Those which relate to the extent and the quality of the woods in Old Serbia are precise, for there the departmental administrative body carefully drew up the cadaster with a view to ascertaining these points ; but the data relating to the ownership of the woodlands should be considered as approximate and only partially exact. The commissions, which are called Commissions of Delimitation and were formed for the express purpose of determining on the ancient territory the limits of the properties of the State, the communes and individuals, have not yet brought the labours of the cadaster to an end everywhere, although they have existed for twenty-five years, and dependable statistical data are available only for the woodlands in which they have completed their task.

As regards the utilization of the woods in Old Serbia there are exact data only for the domanial forests. Those for the forests in private ownership are no more than approximately accurate.

Only summary data are available as to silviculture in the recently occupied territory. Immediately after the occupation a commission was nominated to study silviculture in the new territory. The departmental forest administrations, formed at the same time, were charged with the preparation of a provisional cadaster. The reports of this commission and these administrative bodies contain data as to the condition of silviculture in the new territory, but having been collected in only one year they cannot be more than summary and approximately accurate.

§ 1. EXTENT OF WOODLANDS AND VARIETIES OF TIMBER.

Old Serbia. — Old Serbia has an area of 4,830,260 hectares (1). Of this the woods occupy 1,517,000 hectares, that is 31.4 per cent., and they comprise every species of tree which grows in Central Europe but especially beeches, oaks, Scotch and spruce firs and juniper-trees.

Beeches occupy 60 per cent. of all the woodland and are most numerous in the north. The fir woods which cover only 12 per cent. of the territory are most frequently found in the west (departments of Uzice, Ciacik and Kruscievaz). The oak woods form 23 per cent. of the woodland and are in the south (departments of Kruscievaz, Nish and Toplitza). This distribution is however not absolute but comparative: all the species enumerated may be said to exist all over the country.

More than half the woodlands — 60 per cent. — is formed of mixed trees. There are woods of beeches and oaks, and of oaks, beeches and firs. Only 40 per cent. of the woodlands consist of trees of a single kind.

All the woods of Old Serbia are mature and ready to be cut.

The most important wooded zones are the following:

1) In the east:

a) Miroci, a beech wood of 27,000 hectares:

b) Deli-Jovan, a beech wood of 7,000 hectares;

c) The wooded territory between the Porecika and the Danube and between the lines joining the towns of Golubaz, Despotovatz and Boljevat, all beech wood and extending over 120,000 hectares.

2) In the west:

a) Maljen, a wood of beeches, oaks and firs having an area of 20,000 hectares;

b) Bozania, a wood of 15,000 hectares, of beeches and oaks;

c) Tara, a fir wood of about 25,000 hectares.

3) In the south-west:

a) Gocz, a wood of mixed firs on the slope and of beeches and oaks, having an area of more than 20,000 hectares.

(1) 1 hectare = 2 acres 1 rood 35.383 poles.

b) Golija, Cemerono and Copoanic woods, which occupy together 70,000 hectares and are of mixed firs and oaks.

4) In the south-east:

Jastrebaz, Topliza, Kukaviza, Suva Planina and Stara Planina, woods of mixed oaks and beeches which have a combined area of 130,000 hectares.

New Serbia. — New Serbia has an area of 3,800,000 hectares, of which 570,000 hectares or 15 per cent. are wooded.

It should be noted that in a period which is not yet very remote New Serbia was extremely rich in woods. During the last ten or fifteen years they have been burnt and destroyed by private persons and by government agents, by the former in order to gain pasturage for live stock and by the latter in order better to get rid of the comitadjis who infested the country.

The commission nominated by the Serbian government, to study the condition of silviculture in New Serbia, has established that 22,800,000 hectares — that is 60 per cent. of the woodland — are fitted exclusively for silviculture which might become a very lucrative branch of industry. The commission has proposed that all this land be reforested.

In respect of the quality of the timber New Serbia is like Old Serbia: the same trees are found although in slightly different proportions.

In New Serbia the beech and oak woods are most numerous. They cover almost equal areas and constitute together 80 per cent. of the woodland. The fir woods occupy only 15 per cent and are met with most frequently in the south (woods of Morihovo, Marijano and Malesc).

Most of the woods are mixed (woods of beeches and oaks, woods of firs and beeches). Woods of a single species of tree are very rare (Zlabar, Garvan, Korituic and the mountainous summits of Morihovo and Marijano).

The most important wooded zones are the following:

1) In the north:

a) Zlatar, a fir wood having an area between 6,000 and 7,000 hectares;

b) Jarut, a wood of beeches and oaks, having an area between 4,000 and 5,000 hectares;

c) Slona Gora, a fir wood of from 3,000 to 4,000 hectares;

d) Rogosma, a wood of oaks and beeches of from 12,000 to 15,000 hectares;

e) Copaonic, a wood of oaks and beeches — 15,000 to 20,000 hectares;

f) Ciciaviza, a wood of beeches and oaks of 10,000 hectares.

g) Prapastiza, oaks and beeches — 12,000 to 15,000 hectares.

2) In the east:

a) Lisaz, a wood of beeches and oaks of from 4,000 to 5,000 hectares;

b) Placiavita, a wood of oaks and beeches of from 15,000 to 16,000 hectares;

c) Garvan and Goben, woods of beeches and oaks having a combined area of from 6,000 to 8,000 hectares.

3) In the south :

- a) Marijanska Planina, a wood of firs with beeches and oaks on the slope, of from 10,000 to 12,000 hectares ;
- b) Morihovo, a fir wood of 15,000 hectares ;
- c) Petrinske Planina, a wood of oaks and beeches of from 6,000 to 8,000 hectares ;
- d) Baba and Busciewa Planina, a wood of beeches and oaks of from 5,000 to 6,000 hectares.

4) In the west :

- a) Zegavaz, a wood of beeches and oaks of from 8,000 to 10,000 hectares ;
- b) Caradaj, a beech wood of from 8,000 to 10,000 hectares ;
- c) Milanovaz, a wood of beeches and oaks of 10,000 hectares ;
- d) Blet, a wood of beeches and oaks of from 6,000 to 8,000 hectares.

§ 2. THE OWNERSHIP OF THE WOODS.

Old Serbia. — As has already been said Commissions of Delimitation, charged to determine property rights in the woodlands, were founded by the law of 1891, that is twenty-five years ago.

They began work in 1892 ; but their activity was limited to two or three months a year — July, August and September — and as it has not yet come to an end the ownership of many woods is still uncertain. It follows that the relevant statistical data are exact only for the woods in which the delimitation has been executed and approximate for all the others.

Most of the woods belong to the State and the communes. The State's property has an area of 620,000 hectares, that of the communes 580,000 hectares. The remaining woods belong to churches and convents as to 60,000 hectares and to private persons as to 257,000 hectares.

New Serbia. — Statistical data as to property rights in the woodlands are entirely lacking for this territory. The commission charged to study the condition of silviculture there neglected the question of ownership, for this is connected with the agrarian question which is the object of an enquiry by another commission.

Property in land in New Serbia has retained features characteristic of the feudal régime, and these are found in the woodlands.

The typical forms of landed property in New Serbia are the following :

1) Domain — that is the property of the State, administered and enjoyed by the State directly.

2) Mefat — the property of the State of which the use is left public.

3) Baltalic — the property of the communes. It is always doubtful whether the communes are owners in fact, or are merely usufructories of land jurisdictionally owned by the State.

4) Vakouf — the property of churches and convents. In the case of these also there is doubt as to whether the churches and convents are true owners or merely usufructories.

5) Coria — private property.

Coria is found in three different forms :

a) Property in the true sense of the word, based on a legal title.

b) Property resultant on usufruct, that is the property of a usufructory of the State who declares himself owner.

c) Detention following on illegitimate occupation of lands belonging to the State or the communes (Mefat; Baltalic), the detainer having, after some years, declared himself owner.

The proportion in which these various kinds of ownership, of usufruct and of possession as the result of prolonged occupation exist, is unknown.

§ 3. THE UTILIZATION OF THE WOODS.

Old Serbia. — Until 1891, that is until the new law as to the woods was voted, it may be said that profit was derived from them by means of thefts of wood.

In the communal woods felling, which was effected without any State intervention, was considered to be the incontestable right of all individuals belonging to the commune. The mayor gave formal leave for it as need arose. The leave specified only the number of trees which might be cut down : their choice was left to individual discretion.

For tree-felling in State woods special leave from government officials was necessary. It was allowed freely on the sole condition that the timber should be used for the feller or his family if he were recognized to be poor ; otherwise he had to pay a small due.

In the form granting permission to cut down trees belonging to the State the number which might be felled was indicated. There was no restriction on choice.

It is not astonishing that this method of administering the woods caused their progressive disappearance, but the destruction was less than might be supposed. The smallness of the population and the lack of means of transport were obstacles to this unscientific employment of the woods.

The law of 1891 put a stop to it and gave a better basis to the utilization of woods.

According to the rules laid down by this law the State woods can be utilized only on the following conditions :

1) Before felling is allowed a scheme for it is drawn up by the Forest Administration.

2) The form giving permission to cut down trees not only specifies the number which may be cut down but also the condition that none may be felled except such as are indicated by the competent Forest Administration.

3) Tree-felling for a commercial or industrial object and on a large scale cannot be effected without reforestation, for which a scheme is drawn up by the administration.

4) The use of mountain pasturages and the utilization of acorns are limited as to season and area. The Forest Administration fixes the particular woodland and the time — that is when and where the animals may graze.

In addition to these rules, determining the utilization of the State woods, the law of 1891 is concerned with the communal woods and those in private ownership. Felling in communal woods is conditioned as in State woods. In woods in private ownership the conditions are a little less strict but in these also only trees indicated by the competent Forest Administration may be felled.

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The official statistics distinguish between wood cutting of three kinds :

- 1) woodcutting for firewood ;
- 2) woodcutting for domestic uses ;
- 3) woodcutting for commercial and industrial objects.

By woodcutting for firewood is meant only the cutting done by the peasants, to obtain wood which they or their families burn or which they sell in the towns in small quantities.

By woodcutting for domestic uses cutting done by peasants is also meant, in this case in order that they may make furniture or utensils or parts of agricultural tools (§ 46-50) (1).

Woodcutting for commercial and industrial objects comprises :

- a) Such felling of large quantities of timber as is habitual to merchants.
- b) The woodcutting of industrial workers and labourers whose material is wood.
- c) Woodcutting by merchants dealing in wood.

Woodcutting for firewood and domestic uses and woodcutting by workmen whose material is wood occur in all the departments, in the State woods as in the communal woods and in those in private ownership.

Woodcutting by merchants dealing in wood takes place especially in the departments of Golubaz and Alessinaz where more than 80 per cent. of the timber felled altogether in Old Serbia is cut down.

Woodcutting for purposes of industry and by merchants dealing in wood takes place in the departments of Baina Bascta, Uzize, Pascka, Kraljevo, Proculje, Kruscevaz and Pirot. In Prouplje and Kruscevaz oak-wood is cut down, in all the others firwood. Both kinds of felling take place almost exclusively in the State woods ; such felling in the communal and private woods is quite negligible.

(1) While natural economy was in force woodcutting for domestic uses had a great importance which however is now diminishing more and more.

We show the amount of timber of the different categories derived from the fellings of 1911 :

1.	Woodcutting for firewood	73,651	cubic metres (1)
2.	» » domestic uses. . . .	17,029	» »
3.	» » commercial and industrial purposes:		
	a) woodcutting for firewood	120,000	» »
	» by merchants, industrial workers and workmen whose material is wood	310,000	» »
		520,680	» »

Woodcutting for firewood and for the material of industry has met all the needs of the country in these respects.

The foreign trade in firewood and wood as material was at first unimportant, but latterly there has been a change. While in the past Serbia imported all her luxurious furniture from abroad, she has in recent years begun to export her wood and her imports of furniture have diminished more and more.

The following table gives data as to the export and import of wood.

Years	Import			Export		
	Firewood	Wood in raw state	Wood as material	Firewood	Wood in raw state	Wood as material
1908	45,580	473,395	395,355	134,829	1,569,254	1,229,893
1909	195,686	375,984	269,751	137,962	246,691	1,214,835
1910	164,341	329,498	260,009	145,360	450,280	956,340
1911	340,936	536,184	1,033,051	166,368	184,950	422,245
1912	113,335	507,122	839,318	255,413	389,415	999,416

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Pasturage in the woods and the utilization of acorns are enjoyed on a large scale but the relevant statistics are known only as to the State woods. For 1915 they are as follows:

(1) 1 cubic metre = 1.308 cubic yards.

Pastured sheep	157,336
" cattle	21,786
" goats	13,438
" horses	2,680
" pigs	6,550

in addition to 23,583 pigs fed on acorns (1).

New Serbia. — The utilization of the woods of New Serbia consisted fundamentally, as in old Serbia, in the theft of wood.

It has been said that the large woods were burnt and destroyed. This was done :

1) By the "cipcije", the land serfs, who, since they held no land and cultivated the land of feudatories under the obligation of paying feudal dues, set fire to these woods in order to obtain new pasturage for their live stock, the keeping of which — since live stock were free from taxes — was their most lucrative form of activity.

2) By government agents who burnt the woods in order that they might not shelter comitadjis.

In the period of Turkish domination the government and the private woods were regularly utilized, but most unscientifically and without the exercise of any guardianship on the part of the State. So much was this the case that leave to cut wood in the government woods was obtained easily : by paying a very small due one might cut down at one's own discretion as much as one chose. As for private woods the State concerned itself not at all with them : the wood was cut at the full and absolute discretion of the owners.

Woodcutting was at this time undertaken to procure :

- a) firewood,
- b) green branches for feeding live stock,
- c) various kinds of wood.

Woodcutting for the two first of these objects was by itself very important ; that for the third was quite negligible.

In all New Serbia there were in this period only two saw-works, namely in the wood of Ozany which belonged to the convent of St. Troiza and in the wood of Majstorsca Tora which belonged to the manufacturer and merchant Necib Draga.

It is probable that the pasturage in the woods was very important, but no data allow a precise idea of it to be formed.

§ 4. FOREST ADMINISTRATION.

The ancient territory of the kingdom of Serbia is divided into twenty-four forest districts, each of which has its particular administration.

(1) The utilization of the acorns in the woods has been very important in the last twenty years during which the meat of the pigs called «palozié» has been much exported, but such exportation is diminishing progressively.

Each district administration comprises a chief administrator who is at its head, several subordinate administrators and a suitable number of keepers. The chief administrator must have studied in a secondary and the subordinate administrators in a secondary or primary school of forestry, while the keepers must have followed simple courses of instruction in forestry. As there are no schools in Serbia for this branch of knowledge the administrators, both chief and subordinate, must have studied abroad; but the courses of instruction in forestry for the keepers take place in Belgrade.

The central forest administration is part of the Ministry of Agriculture, Industry and Commerce, forming that one of its five sections which is called the forestry section. This has economic and jurisdictional divisions, of which the former directs the forest policy of the country, while the latter has charge of the delimitation of forest landed property and of summonses to appear in cases of contravention of the law in matters pertaining to forests.

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If we study silviculture in Serbia with any depth we perceive its two principal defects:

1) The division into forest departments, that is into forest departmental administrations, is inadequate. The departments are too vast: it is impossible for the administrator to superintend and control forestry within one of them and to adopt opportune measures in good time. This division must therefore be completely recast, less extent must be given to the departments, and the staff employed in each of them must be increased.

2) Reforestation, which has certainly been somewhat neglected, should be the object of more care. We have stated that the woods of New Serbia occupy only 15 per cent. of the total area while more than 60 per cent. is fitted for silviculture. It is therefore necessary to reforest if not all the extent of territory admitting of reforestation at least a considerable part of it.

In Old Serbia, where the woods occupy 31.4 per cent. of the total area, the problem is easier to solve: the matter is merely one of building up the woods in proportion to the amount of tree-felling done. The law makes reforestation compulsory only in the case of felling for a commercial or industrial object. All other felling, whatever its object, has the effect of thinning the woods. It is therefore absolutely necessary to render reforestation compulsory in every case, and in every wood, whether public or private.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL IN VARIOUS COUNTRIES.

ARGENTINE REPUBLIC.

FORMATION OF AGRICULTURAL COLONIES FOR THE INDIANS. — *Boletín oficial*,
Buenos Ayres, Number 6764, 9 August 1916.

The incorporation of the native population in civil life has for long constantly preoccupied the Argentine government, on account both of its social and of its economic advantages.

Recent decrees have attempted, within the limits allowed by the laws now in force, not only to solve the problem for the native groups in the south of the republic but also to form colonies which aim especially at giving a stable position to the Indians of the north.

As a consequence of colonizing necessities this undertaking has become particularly urgent, and a proposed law, submitted to the congress, aims at protecting the Indians from the manoeuvres of unscrupulous merchants and at encouraging their definite establishment in certain zones appropriated to them. Pending the voting of this law however administrative measures have been taken to obtain the same result immediately. Among them is the decree of 26 July 1916 which forms for the Tóbas and Pilagaes Indians two colonies for arable and live stock farming.

Numerous groups of these natives have expressed their desire to benefit by the arrangements made for the Indian tribes and to establish themselves at certain points of the Chaco and Formosa territory which they occupy already. After an enquiry made by government officials, which ascertained that these lands were appropriated to agriculture, two colonies for arable and live stock farming were formed, one in Chaco having an area of some 53,000 hectares (1), and the other reaching on the south to the Río Pilcomayo and comprising about 85,000 hectares.

A new step has thus been taken towards the civilization of these tribes: they abandon the nomad state and agree to establish themselves in a fixed place and give themselves up to the work of agriculture.

(1) hectare = 2 acres 1 rood 35.383 poles.

AUSTRALIA.

CLOSER SETTLEMENT. — *Dalgety's Review*. Sydney, July 1916.

One very material effect of the war has been to check the subdivision of large estates suitable to closer settlement. As regards New South Wales, returns from the leading centres in each district show that the process of cutting up the larger estates has practically ceased. A few smaller properties have been sold in blocks, principally to adjoining holders, but the movement towards subdivision which was general a few years ago has stopped for the time. A few districts report that no estates large enough for subdivision are left, but generally the stoppage is ascribed to the financial stringency caused by the war, while in some centres the bad season has been another deterrent. The check is, of course, only temporary, and with the return of normal conditions closer settlement will again become important.

In the north generally subdivision is practically at a standstill. Part of the Conningdale estate in the New England district was for sale in seven blocks, aggregating 5,200 acres, of which four were sold to adjoining owners. A few station properties were sold right out, and a few homestead farms changed hands.

In the Warialda district there has been no subdivision, but it has been decided to subdivide some of the larger properties of which a few portions have already been sold privately. Holdings previously subdivided are being sold piecemeal, but the business is generally slack.

In the south the situation is practically the same, most centres reporting "nothing doing". The Clifton estate, Young, which comprised 5,000 acres was divided among five buyers. Woodlyn, Beckour, was cut up into four farms and sold; and Ringambil, Mirrool, is said also to have been sold for closer settlement. A few stations have sold, notably Willie Ploma, Gundagai, and Talbingo, Tumut, but generally there has been little business in this direction. In the Hillston district surveyors have been busy on the proposed railway from Griffiths to Hillston. A large area is expected to be thrown open to closer settlement shortly and the construction of this line is bound to lead to a closer settlement of the central division. In the west it is expected that subdivision will be resumed.

AUSTRIA.

AGRICULTURAL LABOUR IN DALMATIA. — KAUCKY (M). *Die landwirtschaftliche Lohnarbeit in Dalmatien. Der Arbeitsnachweis*. Vienna, Year 1916, Part. 5.

Dalmatia, which suffers permanently from a great scarcity of labour, is not only that one of all the Austrian crown lands which is poorest in fertile land, but is also that in which wages are highest.

The high wages seem to be due to three causes :

(1) *The absence of a real labouring class.* — This is due to the circumstances that the peasants were, even before 1848, free from all subjection ; that the Southern Slav institution of the “ Hauskommission ”, partially preserved, ensures to each man a share, however small, of landed property ; and that the extent of the common lands — pasturage and heath — provides even the poorest with the minimum indispensable to life. Further the nearness of the sea affords various sources of profit.

In the time of Venetian rule the noble landowners already complained of the high wages, which, they alleged, made the profitable cultivation of vines impossible. This is the reason for the extraordinary extension of *métayage* in Dalmatia. That land should be farmed by the holder's family is the rule ; and holders who are not farmers, or who cannot cultivate their lands through the members of their families, usually grant them on lease to *métayers*. In these conditions there is only a limited demand for wage-earning labour.

(2) *The technical character of the agriculture.* — Dalmatia has always been a vine country, that is a country of intensive agriculture in which secondary crops are insignificant and most frequently much neglected, and live stock has little importance. The result has been an unscientific distribution of labour which entails sometimes unemployment, sometimes high wages, without relation to the conditions of life among the rural population in the seasons of their principal labours — those of the vintage and of weeding. The vintage can employ women and children, but weeding needs the strength of a grown man, and it is in the period in which it is practised that the highest wages are paid. When this season is past the need for labour is less, and wages sink to some extent, chiefly as regards the part of them paid in kind.

(3) *The emigration to America, Australia and New Zealand which is principally caused by the crisis in viticulture.* — The desire to emigrate has taken deep root and become inherent in the Dalmatian mentality.

It may be affirmed that ten per cent. of the agricultural population, that is some 50,000 persons who include the best elements of the Dalmatian people, are employed in foreign countries. The resultant and constant lack of labour cannot be counterbalanced by the use of machinery, for machines are not to be thought of in cultivating vines. The same limitation applies, except in a few districts, to the other crops, a fact sufficiently explained by the configuration of the soil of Dalmatia.

An occasional fall in the price of wines, such as occurred some years ago, was not followed by a noticeable fall in wages. Its only marked result was a recrudescence of emigration to America and an aggravation of the scarcity of labour. Viticulture depends on a permanent investment of capital and allows small scope to the adjustment of labour according to the probable yield. Therefore wages must be looked upon not as costs of production, properly so called, but rather as costs of upkeep for which there should be compensation in good years.

The present war has caused on the whole an important rise in wages.

At Lissa in the middle of March 1914 they were from 5 to 5.50 crowns (1) a day, in addition to breakfast and a midday meal which included wine. Therefore for a working day, lasting from seven in the morning until five in the evening, the actual value of the wage was more than 8 crowns. In some cases it was even 10 crowns.

The wage generally comprises the labourer's keep, valued at from 2 to 2.4 crowns a day, as well as from 1.20 to 2 crowns a day in cash.

When several labourers of unequal strength, skill and energy are engaged together they usually receive a uniform wage. Cash wages and keep — that is total wages — vary greatly in different districts.

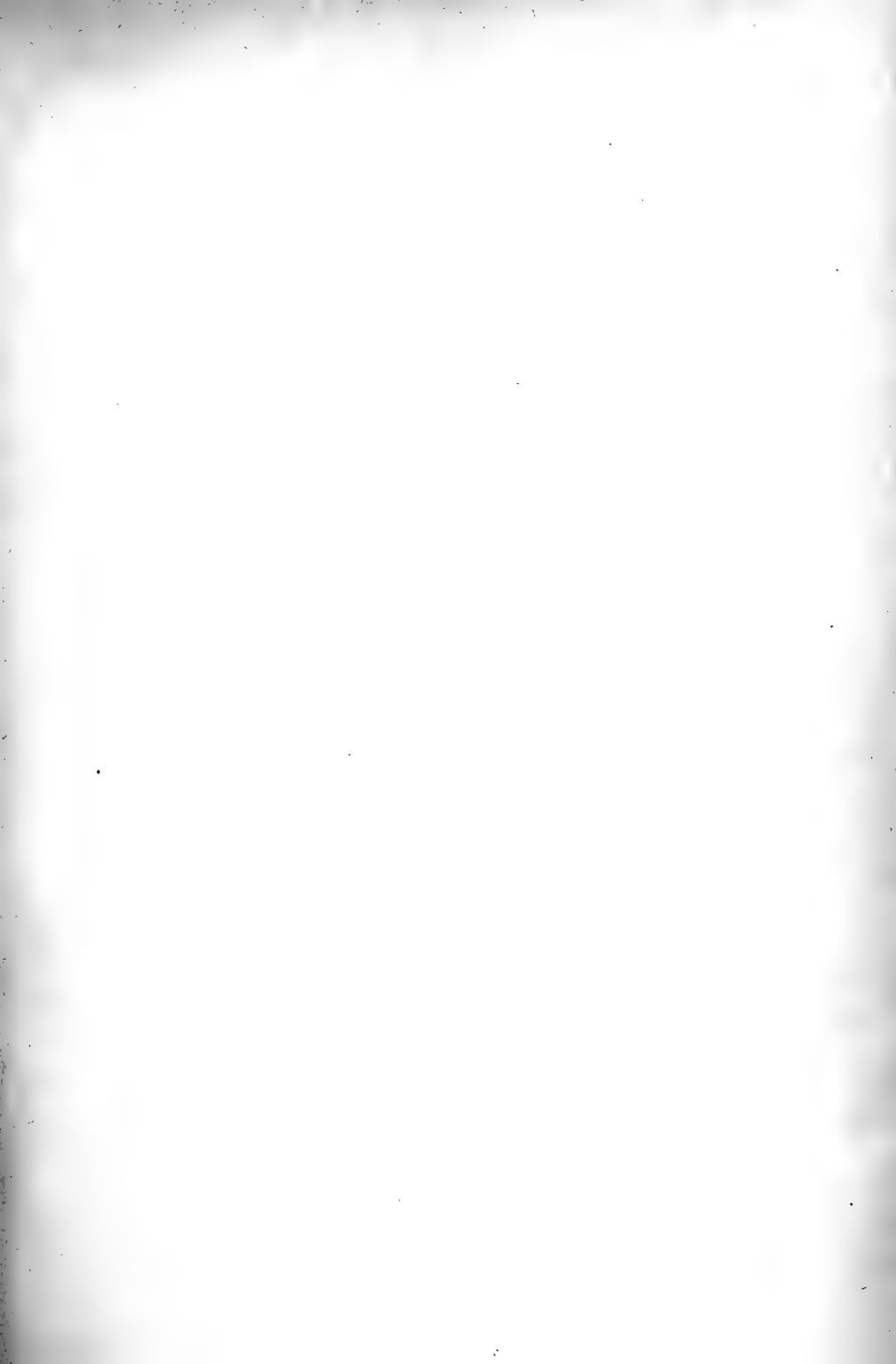
Seasonal migrations to the Dalmatian vineyards are unimportant as compared to the need for labour. In the south Montenegrins have hitherto thus migrated to the Gulf of Cattaro and the Ragusa district.

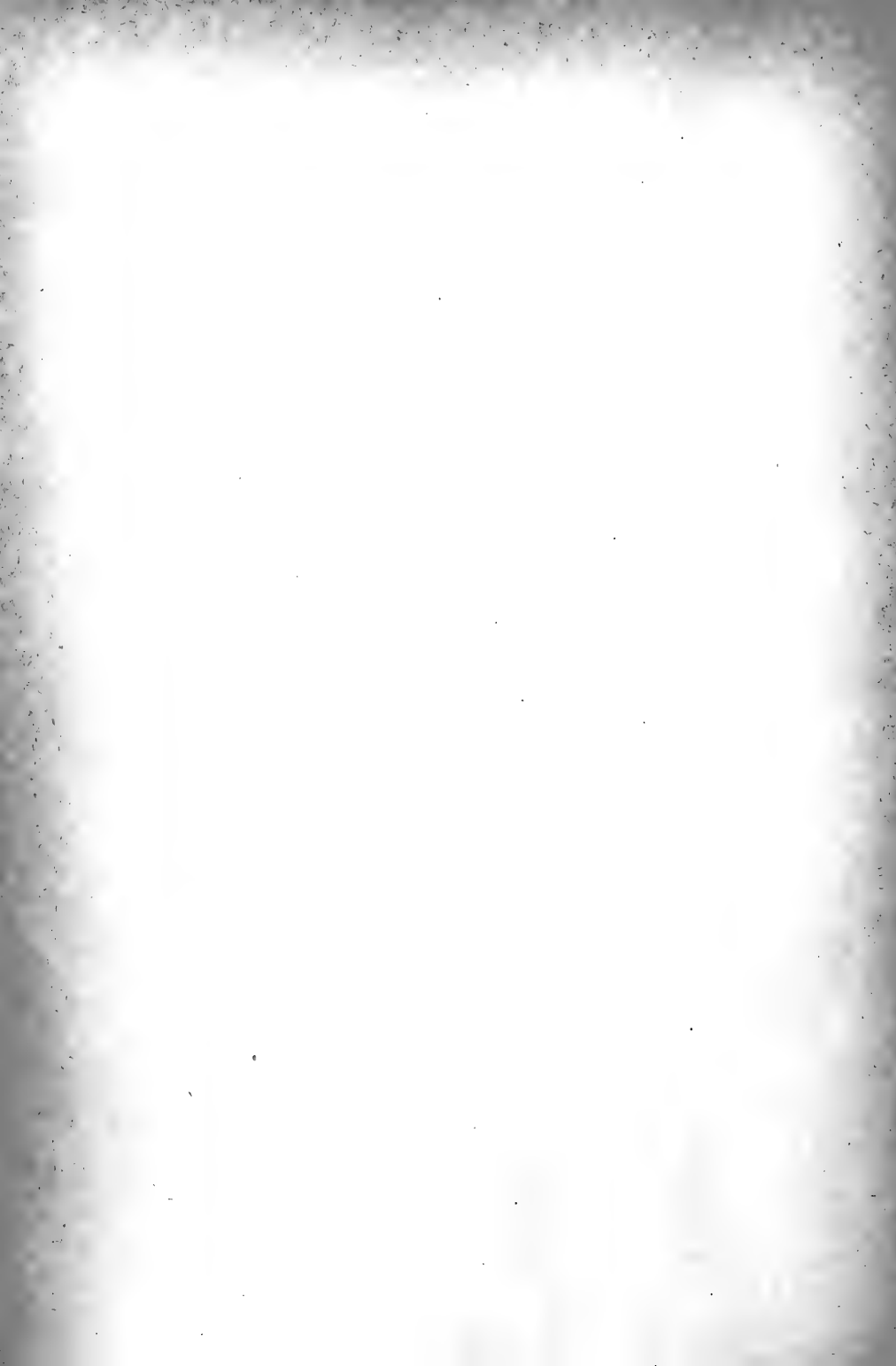
In the north and centre of Dalmatia there is, on the other hand, a seasonal migration of labour from Zagorje, the Dalmatian hinterland and the home of the valued Dalmatian servants. The population is here chiefly occupied by live stock and cereal farming and therefore lacks employment at the exact time at which work is in full swing in the vine district.

In Zagorje itself, where the conditions of existence are primitive, wages are much lower than elsewhere in Dalmatia, but as regards the work they provide the labourers of this district are far behind those of the coast districts and the islands.

In Zagorje a rise in wages is also to be observed, for the cultivation of vines is gaining ground in the valleys which have a good exposure, and emigration is increasing steadily. Moreover the saw-works of the Bosnian forests and the cement factories of the coast have an undeniable attraction for the border populations. The construction of the proposed railways will have the effect of further raising wages.

(1) 1 crown = about 10d at par.





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BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

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AND SOCIAL INTELLIGENCE)

VOLUME LXXIV.
8TH. YEAR: NUMBER 2
FEBRUARY, 1917.



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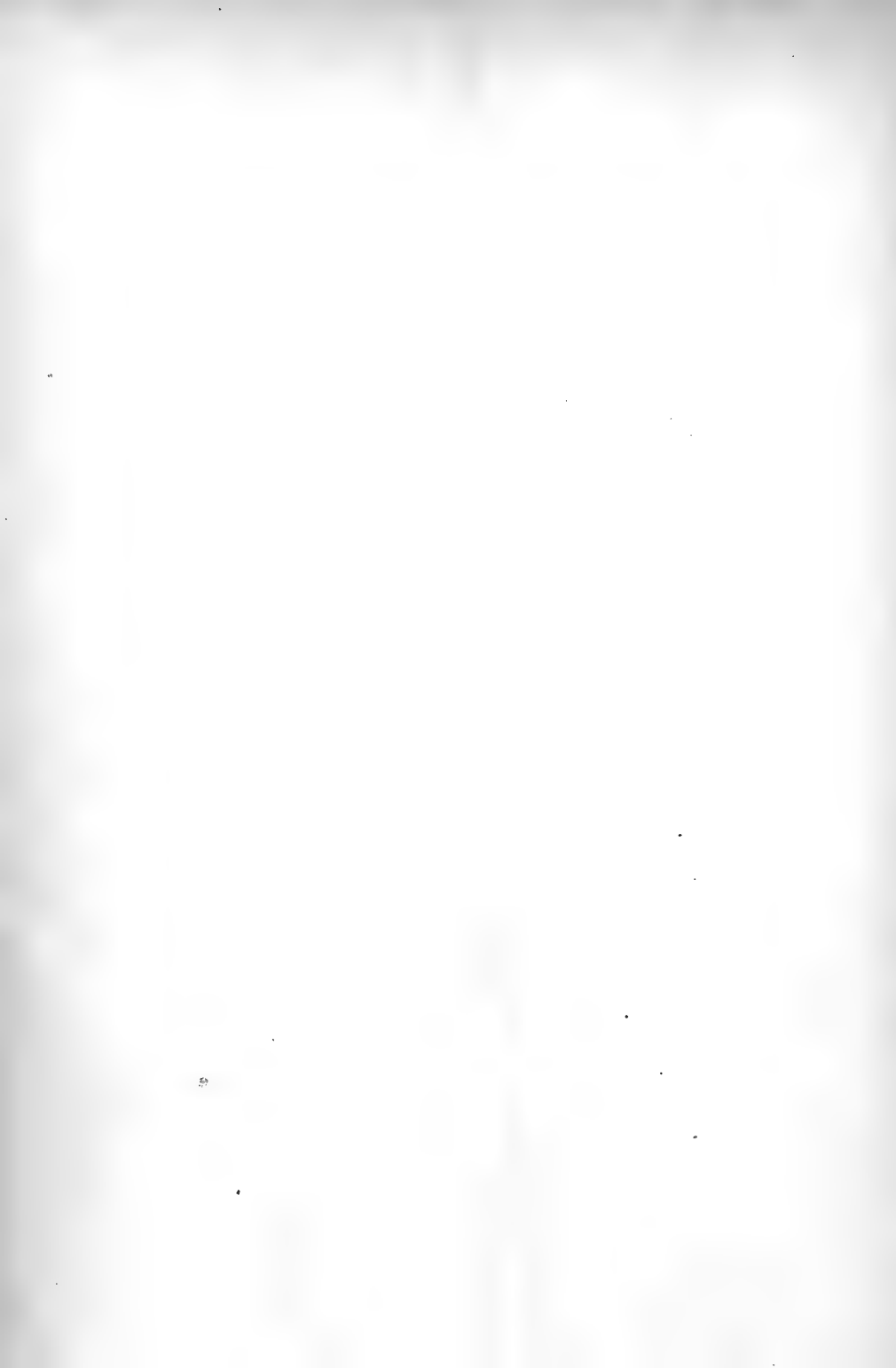
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Part I: Co-operation and Association

GERMANY.

THE GENERAL RAIFFEISEN FEDERATION OF NEUWIED IN 1914-1915.

SOURCE :

JAHRESBERICHT DES GENERALVERBANDES LÄNDLICHER GENOSSENSCHAFTEN FÜR DEUTSCHLAND E. R. FÜR 1915 UND STATISTIK DER RAIFFEISENSCHEN GENOSSENSCHAFTEN FÜR 1914 (*Annual Report of the General Federation of Rural Co-operative Societies in Germany for 1915 and Statistics of Co-operative Societies of the Raiffeisen Type in 1914*).

At the end of 1915 there were in Germany 28,652 rural co-operative societies of which 5,680 or 20 per cent. belonged to the General Raiffeisen Federation, 16,857 or 58 per cent. to the General Federation of German Rural Co-operative Societies of Offenbach, and 6,115 or 22 per cent. to the nine independent district federations.

The General Raiffeisen Federation includes members of two kinds, direct and indirect members.

Its direct members are : one central bank ; fifteen central co-operative societies of which six are co-operative banks and nine co-operative stores ; thirteen district federations, of which two have their headquarters at Berlin, and one each at Brunswick, Breslau, Dantzig, Erfurt, Frankfort-on-Maine, Cassel, Coblenz, Königsberg, Ludwigshafen, Nürnberg and Strasbourg.

The indirect members are 1,598 co-operative credit societies ; and 1,066 co-operative societies not transacting credit operations, namely sixty-five

consumers' societies, 489 societies for the sale of agricultural products, 445 societies of labour and production, and sixty-seven mixed societies.

The General Raiffeisen Federation underwent several changes in 1915. Eighty-four new indirect members, of which forty-eight were co-operative credit societies, adhered to it; and twenty-three members, eight of them co-operative credit societies, ceased to belong to it. The net increase was thus one of sixty-one members, forty of them co-operative credit societies and twenty-one of them co-operative societies of other types. The net increase was one of 137 in 1914, and one of 196 in 1913.

The changes were as follows in as far as they concerned direct members: the two Mecklenburgs separated themselves from the district federation of Berlin and a special federation was founded in them; two new co-operative stores were founded.

*
* *

The business of all these co-operative societies has been much affected by the war. In the annual report the management signalizes the following events as having had a great influence on their activity:

1. Economic activity and the demand for credit have diminished, owing to mobilization, to the economic blockade which has cut off Germany from foreign markets, to the reduction of purchases to the absolutely necessary minimum, etc:

2. The increased circulation of paper which rose from its level of 4.8 thousand million marks (1) at the beginning of the war to one of 6.9 million marks at the end of 1915.

3. The reduced demand for credit and the increased circulation of paper have caused uninvested large capital to be sent to the banks instead of to co-operative credit societies. This has disturbed the equilibrium of the relations between the banks and their clients. Debtors' accounts have diminished and those of creditors have increased. In order to invest this money which comes to them profitably the banks have lent considerable sums to the communes and the State.

4. State intervention in the economic life of private citizens has noticeably increased, especially as regards the trade in foodstuffs. This is monopolized by the State, or rather by institutions created to such end, of which at the end of 1915 there were about thirty. They have used the co-operative stores which has increased the amount of business done by these.

5. Mention should finally be made of the constant or temporary interruption of the work of co-operative societies within the war zone.

Having made this general review we will now give a more detailed account of the different types of co-operative societies.

(1) 1 mark = about 11 $\frac{3}{4}$ d at par.

§ I. THE CENTRAL BANK.

The Central Bank (*Landwirtschaftliche Zentraldarlehnskasse in Neuwied*) Stock Society maintains a balance of credit among all co-operative societies belonging to the General Raiffeisen Federation.

Its shareholding members are all the co-operative credit societies belonging to this federation ; saving that :

1) it does not include as shareholding members sixty Bavarian and 158 Pomeranian co-operative societies although they belong to the General Raiffeisen Federation,

and 2) it does include as shareholding members, although they do not belong to this federation, 256 co-operative credit societies which were at first members both of the federation and of the Central Banks but have ceased to belong to the former while remaining in the latter.

The sphere of the Central Bank includes not only its shareholding members but also all co-operative societies belonging to the General Raiffeisen Federation, that is all of them other than the credit societies, all the co-operative banks and all the co-operative stores forming part of the General Raiffeisen Federation.

The headquarters of the Central Bank are at Neuwied. It has branches in all the district federations, one in each. Until 1909 there was a stores attached to each branch, as a section of it. From 1909 these stores were replaced in Berlin, Breslau, Brunswick, Dantzic, Erfurt, Cassel and Coblenz by independent co-operative stores, but at Königsberg, Frankfort-on-Maine, Ludwigshafen, Nürnberg and Strasbourg they are still open as sections of the respective branches

At the end of 1915 the Central Bank had 4,636 shareholding members. In 1914 it had 4,785, that is 149 more, which is because in 1915 sixty Bavarian and 158 Pomeranian co-operative societies ceased to belong to it while it was joined by sixty-nine new members.

Up to 1913 the capital in shares was of 10,000,000 marks. On 13 June 1913 a vote was given in favour of raising it to fifteen million marks. Of this sum 12,453,750 marks had been paid up at the end of 1914. During 1915 the remainder, namely 2,546,250 marks, was paid up ; and in December 1915 the increase of the capital to twenty million marks was voted.

The movement of money between the Central Bank and its shareholders, the rural banks, has been noticeably accelerated in comparison with previous years, as is seen from the following figures :

1913	359,608,000 marks
1914	318,297,000 "
1915	691,269,000 "

If such total movement be analysed into its component parts, that is receipts and expenditure, it is seen that during the war the increase of re-

ceipts has been much larger than that of expenditure. While before the war receipts were always less than expenditure, the converse has been true during the war, as is seen from the following data :

	1913	1914	1915
Receipts	178,186,000 marks	183,051,000 marks	390,605,000 marks
Expenditure	181,422,000 "	155,246,000 "	300,664,000 "
Excess of Receipts.	—3,236,000 "	+27,805,000 "	+89,941,000 "

The excess of receipts over expenditure would have been even greater in 1915 if important sums had not been deducted for the purpose of subscribing to the public debt. The following sums were subscribed to it in the Central Bank, its branches and the rural banks :

10,000,000 marks to	1st. war loan
45,000,000 "	" " 2nd. " "
85,000,000 "	" " 3rd " "
127,000,000 "	" " 4th. " "

It is calculated that for the purpose of these subscriptions the sum of 132 million marks was taken from the Central Bank ; which is to say that ordinary expenses amounted only to 168,664,000 marks, or 221,941,000 marks, less than the receipts.

The deductions for the purpose of subscription to the public debt are very noticeable if the amounts of monthly expenditure be considered. They were as follows :

January	7,587,000 marks	July	13,329,000 marks
February	6,907,000 "	August	8,053,000 "
March	36,339,000 "	September	103,321,000 "
April	47,319,000 "	October	30,607,000 "
May	6,404,000 "	November	10,251,000 "
June	9,191,000 "	December	21,356,000 "

In the months of April, September and October, those namely in which subscriptions were made to the public debt, the sum taken from the Central Bank was from six to ten times greater than in the other months.

Since receipts exceeded expenditure there was a disturbance of equilibrium as regards the reciprocal relations between the Central Bank and its shareholders. While before the war the Central Bank was always the

creditor of its shareholders, it has become during the war their debtor, as is shown by the following figures which refer to marks :

	31 December 1913	31 July 1914	31 December 1914	31 December 1915
Debit Account .	79,009,000	79,100,000	96,281,000	166,744,000
Credit " .	82,004,000	83,900,000	72,737,000	45,300,000
	<hr/>	<hr/>	<hr/>	<hr/>
Excess of Credit			Excess of Debit	
Account . .	3,031,000	4,800,000	Account . .	23,544,000
				129,144,000

The movement of money between the Central Banks and the co-operative societies other than credit societies, and such movement between the Central Bank and the district co-operative banks, has the same characteristics, although the disturbance of equilibrium, which has been shown, in this case only to be foreseen and not yet accomplished. The Central Bank is still the creditor of these co-operative societies, but its credit with them has much diminished.

a) *The Central Bank's account with the district co-operative banks.*

		31 December 1914	31 December 1915
Credit Account	marks	4,340,000	3,140,000
Debit "	"	440,000	940,000
<hr/>		<hr/>	
Excess of Credit Account	"	3,900,000	2,200,000

b) *with co-operative societies other than credit societies.*

		31 December 1914	31 December 1915
Credit Account	marks	10,238,000	6,038,000
Debit "	"	720,000	1,343,000
<hr/>		<hr/>	
Excess of Credit Account .	"	9,518,000	4,695,000

The movements of money between the Central Bank and the co-operative stores has an entirely contrary aspect. Since the trade of these stores has, as we shall presently see, increased, their debts to the Central Bank have increased also.

At the end of 1915 these debts amounted to 5,565,553 marks as against

a credit of only 141,088 marks. This represents an increase of three million marks on the debts at the end of 1914.

The same causes have led to an increase of the capital employed in the trading sections of the branches of the Central Bank. At the end of 1914 only 4,700,000 marks was thus employed but on 31 December 1915 this sum had come to be 8,500,000 marks.

The movement of money between the Central Bank and the large banks, that is those furnishing money in the form of loans, has an aspect like that, already described, of the movement between the rural banks and the Central Bank. Since receipts exceed expenditure and there is thus a balance of money, the Central Bank instead of taking loans pays money in quantities to these large banks, so that from their debtor it has become their creditor.

The debit and credit accounts of the Central Bank with these banks give the following figures :

		31 December 1913	31 December 1914	31 December 1915
Debit Account . . .	marks	20,984,000	3,660,000	3,000,000
Credit " . . .	"	824,000	5,281,000	15,658,000
Excess of Debit Account		20,160,000	Excess of Credit Account marks 2,221,000	12,658,000

Since the Central Bank has a considerable balance in money, its credit with these large banks would be yet more important if this balance were not employed on investments to which before the war there was little or no recourse.

It has been invested in a) State bills ; b) loans to communes ; c) participation in the business of co-operative producers' societies.

On 31 December 1915 the bank held State bills of the value of 18,839,166 marks ; whereas on 31 December 1914 the value of those it held was 7,800,162 marks, and on 31 December 1913 it was 3,680,616 marks.

Its loans to communes amounted on 31 December 1915 to 83,272,574.62 marks. It then participated in the business of co-operative producers' societies to the extent of 920,050 marks.

To give a clearer idea of the business of the Central Bank we reproduce some items of its balance-sheets :

	31 December 1913	31 December 1914	31 December 1915
Number of shareholders	4,700	4,785	4,636
Paid-up capital	11,485,250	12,453,750	15,000,000
Turn-over of bank	1,398,300,000	1,424,500,000	3,398,300,000
State bills held	3,680,616	7,800,462	18,839,166
Credit account with rural banks	82,041,701	73,366,856	45,299,833
Credit account with non-credit co-operative societies.	16,019,038	18,614,365	17,675,864
Including credit account with producers' co-operative societies .	?	10,238,000	6,038,000
Credit account with communes . .	—	?	83,272,575
Credit account with large banks . .	824,304	5,281,028	15,657,948
Debit account with rural banks . .	79,010,442	96,367,740	166,744,206
Debit account with non-credit co-operative societies.	1,988,561	5,756,727	5,877,249
Debit account with large banks . .	20,984,324	3,059,944	3,000,000

§ 2. District Co-operative Banks for Co-operative Societies other than Credit Societies (*Zentralkassen für Betriebsgenossenschaften*).

As has been seen the Central Bank grants loans to co-operative societies. Before 1912 however its relations with these societies were little developed for its by-laws did not allow it to grant loans on current account.

In order that these societies might command credit of this description co-operative banks for non-credit co-operative societies were formed wherever there were branches of the Central Bank, and they acquired the legal form of registered societies of limited liability.

All co-operative societies other than credit societies in the district, that is all belonging to the local district federation, are accepted as share holding members of these banks. Co-operative societies not belonging to the federation and individuals may be admitted to the same status exceptionally.

The co-operative banks maintain a balance of credit among their members.

In practice they have shown no great vitality. This is due to the fact that the credit necessary to the producers' co-operative societies is of a different kind from that required by the credit co-operative societies. The producers' co-operative societies need large capital to be used for building machines etc: that is capital which may be sunk permanently — and this involves a need of long-term loans. They rarely command free capital which they can place at the disposal of the bank having the duty of maintaining the balance of credit.

Since these co-operative banks could not satisfy the needs of the producers' co-operative societies, the by-laws of the Central Bank were modi-

fied in 1912 to allow it to grant loans on current account to these societies, and to issue bonds based on these loans. Since 1912 the business of the Central Banks with non-credit co-operative societies has increased, while the business of the credit banks has diminished more and more and several of them have been wound up.

At the end of 1914 there were six co-operative banks for non-credit co-operative societies in Breslau, Dantzig, Cassel, Ludwigshafen and Strasbourg, but the three latter are being wound up.

On 31 December 1914 the number of members was as follows :

	Number of Members,		Total. —
	Producers' Co-operative Societies —	Other Co-operative Societies & individuals —	
Breslau	187	13	200
Dantzig	86	35	121
Cassel.	16	5	21
Cologne	8	9	17
Ludwigshafen	11	10	21
Strasbourg	6	7	13
	314	79	393

On 31 December 1913 the capital in shares was as follows :

	Number of Shares —	Paid-up Capital —
Breslau	5,234	1,055,480 marks
Dantzig	1,867	370,162 »
Cassel.	865	173,000 »
Cologne	584	5,840 »
Ludwigshafen	4,946	98,920 »
Strasbourg	462	9,260 »
	13,958	1,712,662 marks

The working capital was as follows :

1913	23,852,966 marks
1914	19,856,625 »

The business of the co-operative banks is shown by the following table which gives several items of the balance sheet of 1914. The numbers refer to marks.

	Breslau	Dantzig	Cassel	Cologne	Ludwigs- hafen	Strasbourg	Total
Turn-over	51,469,266	331,000,000	42,177,000	500,000	1,224,500	5,187,200	431,557,966
Credit Account with members	5,640,236	7,573,065	1,480,381	468,476	1,522,147	1,020,500	17,704,815
Credit Account with banks	—	35,000	84,406	—	83,000	—	202,406
State bills held	3,937	136,932	11,192	—	—	—	152,061
Debit Account with members	517,982	3,206,000	257,602	—	25,561	58,014	4,065,159
Debit Account with banks	1,714,273	122,000	—	—	1,335,662	839,553	4,011,488
Deposits	2,378,182	4,632,000	969,314	448,339	442,725	90,393	8,960,953

As statistical data for 1915 are lacking, changes brought about by the war cannot be shown; yet it may fairly be stated that the war has produced in the business of these institutions the same changes as those we have noticed in the business of the Central Bank.

§ 3. *The Co-operative Stores* (Zentralwareninstitut). — The co-operative stores, of which the first was formed in 1909, aim at ensuring to the rural co-operative societies the advantage of buying and selling in the gross. They have direct relations only with the co-operative societies, that is to say they buy and sell merchandise on behalf of the societies, not on behalf of the members of these. Until 1909 the purchase and sale of goods on behalf of the societies was practised by the Central Bank, by means of its sections which were especially responsible for the goods. Since that year the Central Bank has sought to supersede these special sections by the co-operative stores which it is endeavouring to form.

At the end of 1915 there were nine co-operative stores of which two had been formed in December, so that only seven practised the purchase and sale of goods in 1915. These stores are at Berlin, Brunswick, Breslau, Dantzig, Erfurt, Cassel and Coblenz. The special sections belonging to the Central Bank still exist at Frankfurt-on-Maine, Königsberg, Ludwigs-hafen, Nürnberg and Strasbourg.

The legal form of the co-operative stores is that of registered societies of limited liability. Only one of them, that at Berlin, is a stock company (1).

(1) In 1914 a Centre of the Co-operative Stores was formed with the object of buying and selling merchandise on behalf of these stores.

All co-operative societies belonging to the General Raiffeisen Federation are admitted as shareholding members, as are individuals in the case of a special permission. On 31 December 1915 the seven co-operative stores numbered altogether 2,575 members; 2,397 of these being rural banks, eighty-five of them non-credit co-operative societies, and ninety-three of them individuals. As compared with 1914 the increase was one of 151 members.

The co-operative stores buy and sell merchandise on behalf of their members, and on behalf of all the co-operative societies constituting the General Raiffeisen Federation, even if these be not members.

The activity of the co-operative stores and of the sections of the Central Bank which deal in merchandise extended before the war over the following field :

1. The sale of merchandise in the market on behalf of the co-operative societies.

2. The purchase of merchandise in the market on behalf of the co-operative societies.

3. The purchase of merchandise from the co-operative societies and the sale thereof to them.

Beyond such business the sale in the market of merchandise bought there is effected from time to time, but only in the case of a stores having miscalculated the demand and the supply of co-operative societies.

Since the beginning of the war changes have been introduced into the business of co-operative stores : a) their trade on their own account, that is their sale in the market of merchandise bought there, has increased ; b) trading commissioned by the State and the communes has been introduced. The activity of the co-operative stores and of the sections dealing in merchandise has, as we shall see, increased during the war, and consequently it has been necessary to increase the capital in shares. The five co-operative stores have increased their capital in shares as follows :

Berlin	from	800,000 marks	to	1,000,000 marks	of which	941,000 marks	is paid up
Breslau	"	1,000,000	"	1,500,000	" " "	1,200,000	" " " "
Dantzig	"	1,500,000	"	1,800,000	" " "	1,800,000	" " " "
Erfurt	"	1,000,000	"	1,500,000	" " "	1,013,750	" " " "
Cassel	"	500,000	"	1,000,000	" " "	612,750	" " " "

At the same time the working capital has been increased from 21,527,240 marks to 31,093,246 marks.

The Central Bank has similarly increased the capital employed in its commercial sections from 4,700,000 marks to 8,500,000 marks.

The trade of the co-operative stores and the commercial sections has noticeably increased, as is shown by the following table.

The value of the merchandise bought and sold was :

1913	135,721,137 marks
1914	157,630,291 "
1915	299,272,490 "

The statistical data do not distinguish between trade on behalf of the co-operative trading societies and trade on commission on behalf of the State and the communes. If however the trade in each kind of merchandise be considered separately, it is seen that the increase we have indicated has been caused exclusively by the trade on commission on behalf of the State and the communes, while the trade on behalf of the co-operative societies has rather diminished than otherwise.

In order better to observe the influence of the war on the business of these establishments we think it will be well to compare their trade in the period before the war with their trade during the war. We will take, as an instance, their trade in the period between 1 January 1913 and 30 June 1914, and will compare it with that which they accomplished between 1 July 1914 and 31 December 1915.

Articles of Merchandise	Quantities in Zentners (1)		Difference in terms of percentage
	1 Jan. 1913 — 30 June 1914	1 July 1914 — 31 Dec. 1915	
Manure	16,313,519	10,419,045	— 36.1
Forage	5,660,237	5,599,451	— 1.1
Seeds	132,589	125,379	— 5.4
Combustibles	15,292,752	16,249,109	+ 6.3
Corn	11,198,776	19,182,257	+ 71.3
Total . . .	48,597,873	51,575,241	+ 6.1

(1) Zentner = 110.25 lbs.

Articles of Merchandise	Value in Marks		Difference in terms of percentage
	1 Jan. 1913 — 30 June 1914	1 July 1914 — 31 Dec. 1914	
Manure	53,571	35,582	— 33.6
Forage	38,763	64,770	+ 67.9
Seeds	4,258	4,530	+ 6.5
Combustibles	10,798	10,876	+ 0.7
Corn	90,194	237,879	+ 163.7
Total	197,582	353,641	+ 79.2
Machines	9,633	6,119	— 36.5
Other articles	8,647	14,987	+ 73.3
Total	215,862	374,748	+ 73.6

If we examine the trade in each kind of merchandise separately we arrive at the following conclusions :

1. The trade in manure has diminished during the war, in quantity as in value. The diminution in quantity has however been greater than that in value, which is to say that prices have risen. The diminution of the trade is due to : *a*) the fact that importation from abroad has become impossible (saltpetre, guano) : *b*) the large quantities of manure employed for military purposes (azote, sulphuric acid).

2. The trade in forage has diminished in respect of quantity but only to an insignificant extent, in spite of importation from abroad having been impossible. The pre-war trade in imported forage has been replaced by commissioned trade on behalf of the State : large quantities of bran have been sold and distributed by the institutions on behalf of the State.

As regards the value of the trade in forage it has increased by 67.9 per cent. during the war, which is to say that prices have risen noticeably.

3. The trade in seed has diminished in respect of quantity but, on the other hand, has increased in respect of value. Hence prices have risen here also.

The diminution in quantity is due to the fact that importation from abroad has become impossible.

4. The trade in combustibles has slightly increased, but such increase depends partly on the commissioned trade on behalf of the State and the communes.

5. Very great changes have occurred in the trade in corn, an article of merchandise in which the trade has been monopolized by the State.

The trade in corn shows an increase during the war of 71.3 per cent. in respect of quantity. This figure refers exclusively to trade on commis-

sion for the State. As regards value the trade has increased by 163.7 per cent., which is to say that prices have risen very much.

6. The trade in machines during the war has diminished in respect of value by 3.5 million marks, that is by 36.5 per cent. In the annual report it is noted regretfully that the diminution is not due to a decreased demand but to a decreased supply, the importation of machines from Great Britain and the United States having become impossible during the war.

7. The trade in goods comprised by the heading "other articles" has increased by 73.3 per cent, during the war. The whole of such increase is in the commissioned trade in potatoes on behalf of the State, as is seen by the following table which shows the trade in potatoes of the co-operative stores of Brunswick, Dantzig, Königsberg and Nürnberg (1).

	Quantity	Value
	—	—
1 Jan. 1913 to 30 June 1914	355,481 zentners	955,000 marks
30 June 1914 " 31 Dec. 1915	563,434 "	2,542,000 "

As is seen by these figures the quantity has increased by 58.5 per cent and the value by 166.1 per cent., which is to say that prices have risen.

We are therefore in a position to draw the following conclusions:

a) The trade on behalf of co-operative societies in all articles of merchandise has diminished in respect of quantity. In respect of value, only the trade in manures has diminished, while the trade in all other articles of merchandise has increased owing to the considerable rise in prices.

b) The trade on commission on behalf of the State, which is a quite new form of activity for these institutions, has been very important especially where it has concerned corn and potatoes, and in fact all foodstuffs.

(1) The other institutions give no figures regarding the trade in potatoes.

CANADA.

THE CO-OPERATIVE SALE OF WOOL.

SOURCES :

- THE WORK OF THE CO-OPERATIVE WOOL-MARKETING SYSTEM, in *The Farmer's Advocate*, No. 1256, London, Ontario, 19 October 1916.
- SUCCESSFUL CO-OPERATION BY SHEEP BREEDERS IN QUEBEC, in *The Farmer's Advocate*, No. 1245, London, Ontario, 3 August 1916.
- CO-OPERATIVE MARKETING OF WOOL, in *The Agricultural Gazette of Canada*, Ottawa, October 1916.
- ARKELL (T. Reg.): Chief of Sheep Division, Preliminary Report of Wool-grading Operations, 1916, *ibid.*

§ 1. GOVERNMENT ACTION FOR THE GRADING OF WOOLS.

The enthusiastic support given by the Canadian government to the development of co-operation within its territory is well known, as are the excellent results already obtained by the organizing work it has inspired.

Wool production and the trade in wool afford another example of the usefulness of co-operation to farmers. An effort which had its co-ordinated beginning only three years ago has given rise to a new situation which is full of promise for the future and is already of great benefit to the producers as well as to the wool industry.

The central government's propaganda and that of the provincial governments in favour of the co-operative sale of wool has been fruitful more or less everywhere, although in some provinces this method of sale is still in its initial period.

Most farmers having a flock of sheep were formerly at the mercy of woolmerchants who wandered about the country, from farm to farm, making offers which the producer was in most cases obliged to accept, however little he liked them, unless he wished not to market his produce. The prices paid on the spot by these dealers or their agents were naturally much lower than those obtained in the large markets, and the small sheep-farmer was thus deprived of the greater part of the profit which ought to have accrued to him. It followed that he almost ceased to take interest in the improve-

ment of his flock and was at no pains to inform himself as to the condition and the needs of the wool trade.

The organization of the co-operative sale of wool did away with these disadvantages. In the measure of its still limited adoption it has ensured to farmers owning sheep a just price for their produce. It has, in the first place, eliminated the middleman ; either because — as is notably the case in Saskatchewan and Manitoba — the Department of Agriculture undertakes to sell the wool sent to it by producers, or because the responsibility of marketing the wool of members has been assumed by a large association of sheepfarmers. The latter expedient is employed in Alberta, Quebec and Prince Edward Island. Centralization has solved the problem of transport, complete car-loads of wool being made up, and a considerable economy has thus been effected.

But it soon became apparent that for the remunerative marketing of wool there was another necessary condition. Co-operative selling of wool, without preliminary grading of its different classes, is an improvement on individual selling but can be of only limited benefit to sheepfarmers. The Dominion Department of Agriculture made a new forward step possible when it placed expert graders freely at the disposal of the provincial governments who asked for them. Thus a uniform system of grading has been established in various Canadian provinces and has allowed a firm basis to be given to the value of wool.

The scientific grading by experts has further enabled those numerous improvements to be ascertained, which it was necessary to introduce into the methods of shearing and of preserving and packing fleeces in order entirely to obviate their deterioration. Carefully drawn-up rules have been communicated to the farmers as being the *sine qua non* of the sale of their wool by the Department of Agriculture. Short courses of instruction in the rural centres, lectures and practical demonstrations — organized or provided by the Department of Agriculture — have produced a tendency towards the modification of sheepfarming in accordance with the principles of science. Farmers have become aware of the importance of selecting the breed of their sheep with a view to wool production and they attempt to remedy the defects of their wool. Thus the flocks of Canada increase while their intrinsic value is augmented.

Such are the general results of government intervention in favour of the co-operative sale and the grading of Canadian wool.

Altogether, according to the official Preliminary Report of Wool Grading Operations in 1916, the government experts, who have worked in all the provinces of Canada, have graded 140,178 fleeces, weighing 1,004,512 lbs. and produced on the farms.

The importance of this form of co-operation, now in course of development, cannot be too much emphasized, especially at the present time. Facts concerning it are instructive because it is fitted both considerably to increase the production of wool and to improve its quality ; and might well be adopted in many countries and contribute to augmenting their wealth in sheep.

We will now give details as to this enterprise in the Canadian provinces in which it has become important

§ 2. DATA AS TO THE GRADING AND SALE OF WOOL IN SEVERAL CANADIAN PROVINCES.

Province of Alberta. — The Alberta Sheep Breeders' Association has held three co-operative wool sales. Their inauguration and success were made possible by the help given by the provincial government towards organizing and maintaining the association, and by the action of the Dominion Live Stock Commissioner's branch of the Dominion Department of Agriculture in placing at the disposal of the association, without charge, experts who graded the wool. The manner in which these services have been rendered has established a confidence between the association and the buyers which would have been difficult to secure without the official grading by the government officials.

As regards profits some farmers who sold through the association received in 1915 as much as 32 cents (1) for a pound of wool, while their neighbours sold wool of equal quality privately for 18 cents a pound.

The association charges no commission on sales, but assesses the members for the cost according to the quantity each remits. The cost of handling the wool was in 1916 one cent a pound. This included the wages of the staff while the wool was being sorted, weighed and loaded on cars, insurance, printing, general office expenses, and the cost of bags and twine.

The association issues a tabulated statement showing the quantity of wool of each grade sold and the prices received by individuals. Members can thus see how their wool compares with that of their neighbours; and a number of them become anxious to know how they can improve the quality of their wool and so increase their profits. These tabulated statements have moreover helped to establish wool values: individual buyers who still travel from farm to farm are now compelled to offer much better prices to farmers than they would have done before the inauguration of the association's sales.

The following figures show the improvement in the quality of the wool sold by the association from 1914 to 1915:

(1) 1 cent = about $\frac{1}{2}d$ at par.

Years	No. of Sellers	No. of Fleeces	Carloads	Value	Average price per lb.
1914	21	2,500	$\frac{3}{4}$	\$ 3,192.19 ⁽¹⁾	19.00 cents
1915	88	14,500	5	26,837.61	27.77
1916	335	42,489	13	83,867.00	29.09

(1) \$ = 4.73s at par.

The following facts show the details as to the prices received per pound of wool by quality :

Fine	combing	28 $\frac{1}{2}$ cents
"	clothing	18 $\frac{1}{2}$ "
"	medium combing, firsts	33 $\frac{1}{2}$ "
"	" clothing, "	27 $\frac{1}{2}$ "
"	" combing, seconds	29 "
"	" clothing, "	27 $\frac{1}{2}$ "
"	" combing, firsts	35 "
"	" clothing, "	28 $\frac{1}{2}$ "
"	" combing, seconds	31 "
"	" clothing "	28 $\frac{1}{2}$ "
Low	" combing	30 $\frac{1}{2}$ "
"	" clothing	30 $\frac{1}{2}$ "
Coarse		30 "
Lustre		30 "
Rejects		27 "
Gray and black		26 "
Locks and pieces		22 "
Tags		12 "
Dead wool		15 "

Province of Saskatchewan. — Saskatchewan is generally recognized to be the great grain-growing province of the dominion, but she has given considerable attention to sheepfarming. There are now upwards of 1,500 flocks in the province, varying in size from the small farm flock to the ranch of ten thousand head. Statistics compiled by the Provincial Department of Agriculture show that there are 192,000 sheep in the province.

Three years ago it was quite a problem to market the wool of these flocks. The sheepfarmers are scattered all over the province; the only markets are in East Canada and the United States; few neighbourhoods produce as much as a carload of wool. The wool therefore was sent long

distances and high freights were paid. Many of the owners, who came from practically all parts of the civilized world, had little experience in sheepfarming. Breeds were various and grading unknown: the poorest wool often sold as well as the best and naturally high prices were not paid. In the autumn of 1913 an enquiry was made by the then newly created Co-operative Organization Branch of the Provincial Department of Agriculture. The fact was revealed that the wool clipped that year had been sold at from 8 to 13 cents a pound, 10 cents being about the average price. The department thereupon decided that it was necessary to introduce a new system of marketing which would ensure economical management and the grading of prices according to quality.

A list of the sheepfarmers in the province was at once compiled and early in March 1914 a letter was sent to each, announcing that the Co-operative Organization Branch was prepared to act without charge as marketing agency for the sheepfarmers who would prepare their wool according to its directions. The practice of tying fleeces with binder twine and other sisal cord, and despatching them in coarse jute sacks was one of the chief causes of the low prices received. The sisal fibres, which became mixed with the wool, would not take the dye as the wool did, and the result was the manufacture of inferior cloth. The branch, to overcome this difficulty, undertook to supply to those who would use its marketing facilities paper fleece twine and closely woven jute sacks at cost price.

The following are the instructions sent to persons who intimated that they would market their wool through the branch:

- " 1. Roll and tie the fleeces carefully :
 - " a) Removing all manure or paint-clotted locks,
 - " b) Rolling the fleece with the fresh side out,
 - " c) Tying each fleece by itself with paper fleece twine.
- " 2. Pack the fleeces in the sacks supplied being careful to
 - " a) Include only dry wool in your consignment.
 - " b) Pack the fleeces from the ewes, wethers and bucks, respectively, in separate sacks as far as possible. When it is necessary to pack two or three kinds of fleeces in one sack place sheets of strong paper between the different kinds.
 - " c) If two or more breeds of sheep are kept pack the wool from each breed by itself, or when necessary pack in the one sack and separate with paper as above described.
 - " d) If you wish to forward the *tags* (manure or paint-clotted locks clipped from the fleeces) or black or brown fleeces, always place them in sacks by themselves.
 - " e) Pack the wool tightly into the sacks. A 40-inch by 90-inch sack should hold at least thirty fleeces.
- " 3. Prepare for market by :
 - " a) Filling out two shipping labels for each sack, being careful to give name and address of shipper, name of breed from which wool is taken, also number, kind and net weight of fleeces.

" b) Placing one inside the sack and sewing the sack up, using strong, hard twine.

" c) Sewing the second shipping label securely to the side, not to the end of the sack.

" 4. Storing.

" a) Store the sacks where they will be kept dry until ready to ship.

" 5. Shipping.

" a) Forward the wool by freight, via the most direct route, to the Co-operative Organization Branch, Department of Agriculture, Regina, making the shipment between June 19 and July 1. No shipment should be forwarded later than July 1.

" b) Either prepay the freight to Regina or forward the shipment freight, charges collect, and the Department will pay the freight and deduct the amount from your cheque before making the final settlement.

" c) As soon as the shipment is made, forward the bill of lading at once by mail to the Co-operative Organization Branch. "

In 1914, 180 sheepfarmers prepared and forwarded their wool according to these directions. Their total consignment, amounting to 69,404 pounds, was assembled in Regina and sold at a flat price of 17 $\frac{3}{4}$ cents a pound. This, after local freight from the producers' stations to Regina and the cost of twine, sacks, storage, handling etc. had been paid, brought the producers an average price of 16 $\frac{1}{2}$ cents a pound. In 1915 the work was carried on in practically the same way, and 306 sheepfarmers marketed altogether 148,339 pounds of wool through the branch, obtaining a flat price of 25 cents a pound.

In 1916 the Dominion Live Stock Branch undertook by arrangement to provide expert graders to classify the wool, and the same instructions were issued to producers as formerly. Four hundred and eighty-seven owners of flocks marketed through the branch their wool (176,601 pounds) which was sold by tender. The following figures summarize the total weight of each grade handled and the price realized for it.

	Grade	Pounds	Price per pound
Fine	combing.	6,623	33 cents
"	clothing	10,896	29 "
"	medium combing, firsts.	11,883	36 "
"	clothing, "	3,631	34 "
"	combing, seconds.	21,093	34 "
"	clothing, "	8,080	32 "
"	combing, firsts	21,288	37 "
"	clothing, "	1,767	34 "
"	combing, seconds.	33,160	34 "
"	clothing "	4,088	31 "
Low	" combing.	15,415	34 "
Coarse		3,574	32 "
Lustre		10,344	31 "
Rejects		14,160	24 "
Gray and black.		1,519	28 "
Locks and pieces		914	24 "
Tags		2,758	11 "
Range		5,363	31 "
Mohair.		145	20 "

Under the grading system the cost of handling the wool was considerably higher, being practically one cent a pound, but this was to be expected as it was necessary to unpack all the wool, grade each fleece and then repack it. It is however quite evident that the price obtained by grading more than compensates for the extra expense.

Province of Manitoba. — Manitoba farmers have long since recognized the value of the co-operative principle, and it is not surprising to find the flockmasters adopting the co-operative grading system as a solution of their wool-marketing problem.

Western wools are sold unwashed. When the buyer estimates the value per pound he estimates also the shrinkage, and then appraises the wool by comparison with scoured wool of like quality in the eastern market.

All sheep owners in the province were supplied early in April 1916 with a circular setting forth in detail the conditions of the wool-marketing scheme. As in Saskatchewan all wool was ordered to be despatched to the Department of Agriculture in June, but this year June was so wet that much of it was not sent until the middle of July. The directions for packing were identical with those issued in Saskatchewan. Freight was prepaid in the majority of cases.

The Dominion Department of Agriculture supplied an expert to do the grading, a record of which was kept on especial forms known as Domestic Wool Grading Sheets. When the wool reached the warehouse it was weighed in the presence of the official grader and a representative of the Provincial Department of Agriculture. The consigner was then notified and an advance payment of 20 cents a pound made, the balance being paid

after the wool had been sold and fully paid for. The wool was immediately graded and packed in wool sacks. On each sack the weight, grade and Dominion mark were stencilled by the grader.

The wool was open to inspection at all times ; and large buyers all over the American continent were notified of the amount for sale, its average quality, and the date at which tenders would be received. Bids were received by closed tenders and the wool sold to the highest bidder. The sale was made on the bases of the grades, as classified by the Dominion representative, acting in this respect for both seller and buyer. The wool was sold for cash, 5 per cent. being paid by the purchaser at the time of sale and the balance when it was despatched.

The expenses for printing, advertising, postage, drays, labour, insurance and freight were estimated after the sale had been completed, and deducted from the price received.

In 1916 nearly 160,000 pounds of wool were sold, of which 154,000 pounds were officially graded. The ungraded wool was sold locally for the best price available. The following figures give the number of pounds of the different grades of wool sold and the prices received for them.

Grade	Pounds	Price per Pound
Fine clothing	2,859	30 cents
" medium combing.	6,726	33 "
" " clothing	6,581	30 "
" " combing	57,230	34 "
" " clothing	11,642	30 "
Low " combing	37,400	34 "
Coarse	1,639	32 "
Lustre	15,542	30 "
Gray and black.	3,111	22 "
Rejects	2,044	24 "
Seedy and dead.	2,471	22 "
Locks and pieces	2,989	22 "
Tags	1,280	10 1/2 "
Mohair.	120	28 "

Owing to the war there is an abnormal demand for coarser or combing wools, the clothing wools being somewhat less in demand and used chiefly for making finer materials and broadcloth.

One of the outstanding features of the whole scheme is the number of small sheep owners who benefit by it. More than half the wool of all the

flockmasters of Manitoba — estimated at over a thousand — was marketed through it in 1916. Careful breeding, attention to the health of the flock, and care and cleanliness in handling the wool, might increase the price paid for Manitoba wool by fully 5 cents a pound.

Prince Edward Island. — The co-operative grading and selling of wool was attempted for the first time in Prince Edward Island in 1915. Fifty farmers delivered 5,500 pounds of wool which were very satisfactorily sold. The work was in this year undertaken rather late, but after the harvest there were constituted in the west of the island societies for the co-operative sale of wool and lambs and for community breeding. In other parts of the island the farmers' institutes and the breeding associations became busy over the same problem. Efforts are being made to combine all local societies under the Sheep Breeders' Association, thus placing all the work on the producers. During the winter a representative of the Federal Live Stock Branch gave a number of demonstrations on boxing fleeces, and pointed out how wool might be increased in value by proper care during the winter. This department agreed to do the grading in 1916 as in the previous year, and stations for receiving the wool were opened at Summerside and Charlottetown.

The chief obstacle to progress seems to be the time farmers have to wait for payment, for they used to sell the wool directly to merchants for cash. One of the bankers has however agreed to help the associations.

In 1916, 369 farmers took advantage of the organization. Altogether 28,302 pounds of wool or 4,411 fleeces were sold, for a total price of \$ 10,949.47. The prices of the different grades varied from 43 cents a pound for medium clothing to 10 cents a pound for tags.

Province of Quebec. — The Wool Growers' and Sheep Breeders' Associations in Quebec have again successfully graded and marketed their wool. In order to facilitate the work and improve the quality of the product instructors have gone through the province and explained to the farmers the rules they must follow in preparing their wool for sale, shearing etc. :

Six hundred and forty-seven new members have been added since 1915 to the associations ; a new association has been formed in Megantic county, and the total output of wool was 169,839 pounds in 1916, showing an increase of 65,647 pounds as compared with 1915. The wool was sold in 1916 for \$ 71,092.70. Medium and fine medium combing grades sold at 43 cents a pound, black and gray and rejects at 38 cents. The average price for all grades, including rejects, was 41.8 cents a pound. These prices were all F. O. B. at the despatching points. Since local prices for ungraded wool ranged from 31 to 35 cents a pound, a gain of 7 to 12 cents a pound, or 40 per cent., had been secured.

The associations are on a purely co-operative basis. The membership fees are based on the amount of business which each member does with the association. Four cents a fleece has been found to be sufficient to cover all expenses.

The results obtained have been an improvement in the quality of the wool and in its preparation for sale, and its marketing at higher prices.

The following figures show the production of single associations.

Association	Number of Pounds Produced
Pontiac	51,564 ½
Compton	24,471 ½
Richmond	17,567
Sherbrooke	16,885
District of Bedford	16,621 ½
Stanstead	14,252
District of Beauharnois	13,350 ½
Argenteuil	11,191
Megantic	3,937
Total	169,840

As regards the proportion in which the different grades were produced it is enough to state that medium combings account for 49.4 per cent. and low medium combings for 34.5 per cent. of the total quantity.

The following are further data as to the associations and their production and sale.

Association	Number of Members	Number of Fleeces	Average Weight per Fleece	Average Price per Fleece	Average Price per Pound
			Pounds		
Pontiac	488	7,216	7.02	\$ 3.04	42.8 cents
Compton	282	3,489	7.06	3.00	42.4 "
Richmond	167	2,364	7.43	3.10	41.7 "
Sherbrooke	133	2,238	7.53	3.19	42.3 "
District of Bedford	153	2,226	7.42	3.08	41.5 "
Stanstead	125	1,965	7.22	3.06	42.3 "
District of Beauharnois	113	1,545	8.79	3.62	41.1 "
Argenteuil	107	1,481	7.75	3.10	40.0 "
Megantic	49	486	8.1	3.45	42.5 "
	1,617	23,010	7.59	3.18	41.8

Nova Scotia. — The co-operative selling of wool was undertaken in two counties of Nova Scotia in 1916, in Antigonish and Guysboro. In both the Department of Agriculture has representatives who organize the work. In Guysboro merely a beginning was made, the total sale amounting to a little less than 2,000 pounds. In Antigonish it was the second year in which wool was sold co-operatively, and about 15,400 pounds were graded and sold. The average price received was 41 $\frac{1}{8}$ cents a pound. The expenses amounted to slightly more than half a cent a pound.

REGENCY OF TUNIS.

NATIVE THRIFT SOCIETIES IN 1915.

OFFICIAL SOURCE :

DIRECTION GÉNÉRALE DES FINANCES: *Compte rendu des opérations des sociétés indigènes de prévoyance en 1915.* (Financial Statement as to the Work of the Native Thrift Societies in 1915). Tunis, 1916.

The native thrift societies, to which all native agriculturists are obliged to belong, date from 1901. In those days there was question only of an experiment, and in 1905 only fifteen societies were at work. The benefits of the scheme were extended to the whole regency by a decree of 20 May 1907. The first article of this decree states that the Tunisian societies are enterprises of "agricultural mutual aid" — thus presuming for them a large programme of collective activity — and specifies their power to form among their members agricultural co-operative associations. Article 21 lays down that such co-operative societies may enjoy the benefit of special advances from the sums annually due to the Bank of Algeria, exactly as do the planters' co-operative societies. The thrift societies play, towards the co-operative societies and in respect of these advances, exactly the rôle of the district banks of agricultural credit.

But the Tunisian legislature has aimed especially at organizing credit for natives. The decree states very clearly in the first place that loans are to be made exclusively to members of the thrift societies (articles 3 and 13). These loans are in the form of seeds and of specie: the members can borrow even to extinguish prior debts, if necessary, on the security of mortgages, so that they can at once free themselves from dependence on usurers. Further the decree of 20 May 1907 is concerned with providing the thrift societies with the resources necessary to their credit operations: it deducts from an advance of one million francs (1) made by the Tunisian government to the Bank of Algeria a sum of 50,000 francs as reserved to these societies; and to this a decree of 26 January 1911 adds the half of the annual dues. From these sums the societies can receive free advances equal

(1) 1 franc = $9\frac{3}{5}$ d at par.

to half the sum of the centimes additional to taxes which they have collected as assessments. Since these resources may be insufficient, the same decree of 26 January 1911 authorizes the societies to open current credit accounts in quarters approved by the Director of Finances. It also determines the procedure for the realization of long or short term loan operations, whether secured by a mortgage or not.

The relief given by Tunisian thrift societies should be noted. It is limited in its scope and may not be granted directly. Article 10 states that in the case of a famine the societies may make advances, which are repayable, to the necessitous; and that it will subsequently be the part of the government to remit to the borrowers, at the request of the societies, all or part of the advances so made.

The amount of the assessments of centimes additional to the native taxes varies in the different societies from 5 to 17 per cent. of such taxes.

§ I. RECEIPTS

The receipts of the native thrift societies which have increased their credit were in 1915 as follows:

1) Recoveries on the credit of former societies.	Fr.	1,441.61
2) Additional centimes on <i>mediba</i> tax.		6,746.53
3) Quota of the recoveries of temporary assessments due to the native thrift societies		118,058.60
4) Additional centimes on <i>canoun</i> tax on olive and date trees:		
Years prior to 1910	314.13	72,665.21
Years 1910 and later	72,351.08	
5) Additional centimes on <i>achour</i> tax:		
Years prior to 1910	748.37	88,440.42
" 1910 and later.	87,692.05	
6) Additional centimes on <i>djerba</i> tax		9,328.42
7) " " " <i>mradias</i> "		2,561.21
8) Recovery of costs of management and commissions:		
a) for loans of seeds.	2,806.58	56,951.54
b) for mortgage loans	53,362.67	
c) for advances to affiliated societies.	782.29	

Total . . . Fr. 356,193.54

Independently of these receipts the societies recovered 3,765,887.52 francs in 1915 of the amount of their loans, such sum being distributed as follow:

1) Loans of seeds 1908-1909	Fr.	3,950.32
2) " " 1909-1910		4,308.48
3) " " 1910-1911		21,107.24
4) " " 1911-1912		7,450.10
5) " " 1912-1913		137,005.94
6) " " 1913-1914		228,949.56
7) " " 1914-1915		3,230,430.11
8) " maintenance 1912-1913		53.00
9) " " 1913-1914		36,986.00
10) " " 1914-1915		131,020.00
11) Mortgage loans		43,970.04
12) Advances to affiliated societies		51,676.73
Total . . . Fr.		3,896,907.67

Carried forward from receipts increasing credit of societies	356,193.54
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Total sum of receipts in 1915	Fr.	4,253,101.21
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§ 2. CREDIT ACCOUNT OF THE SOCIETIES ON 31 DECEMBER 1915.

Since no expenditure in 1915 had diminished the amount of the receipts increasing the credit of the societies these amounted to the net sum

of	Fr.	356,193.54
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Add to this the amount of the societies' credit when the

books of the previous year were closed	4,595,721.89
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The total credit of native thrift societies on 31 Dec-

ember 1915 was therefore	Fr.	4,951,915.43
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This sum was distributed as follows :

1)	In hand in specie	Fr.	1,514,073.48
2)	Loans of seeds in 1908-1909 still to be recovered		49,709.37
3)	" " " 1909-1910 " " "		28,190.53
4)	" " " 1910-1911 " " "		94,578.75
5)	" " " 1911-1912 " " "		980.16
6)	" " " 1912-1913 " " "		466,176.01
7)	" " " 1913-1914 " " "		199,333.54
8)	" " " 1914-1915 " " "		3,280,695.68
9)	" maintenance in 1912-13		58,173.98
10)	" " " 1913-1914		30,003.70
11)	" " " 1914-1915		4,086,450.64
12)	Mortgage loans		1,577,232.70
13)	Sums advanced to affiliated societies.		31,666.16
14)	Sums spent before 31 December 1915 on loans of seeds in 1915-16, not yet distributed among the borrowing societies.		916,313.88
Total . . . Fr.			12,333,578.58

From this must be deducted :

1)	Sum due to the Revictualling Account (1) and advanced for the loans of seeds in 1914-1915	Fr.	3,295,212.51
2)	Sum due to the State and advanced for the loans of maintenance in 1914-1915.	Fr.	4,086,450.64
			7,381,663.15
Remainder . . . Fr.			4,951,915.43

(1) See the article on the "Revictualling Account" in our issue of June 1916, page 113.

§ 3. GENERAL OBSERVATIONS ON THE WORK OF THE SOCIETIES IN 1915.

1) *Receipts*. — The results obtained by the native thrift societies in the matter of receipts during 1915 may be considered satisfactory, for it should be remembered that the harvest in certain districts left much to be desired owing to drought and hail, and that the state of war has caused special conditions. The net amount of the credit of the societies was 4,951,915.43 francs on 31 December 1915, and this sum has since been surpassed.

This capital surpasses that anticipated at the foundation of the societies, namely four million francs ; but it was nevertheless inadequate to the needs of the season 1914-1915, during which the societies were obliged to accept State aid in order to ensure the loans of seeds and maintenance to the natives, which loans constitute their first and their chief object.

It must however be anticipated that the societies will soon, in addition to their present provision of necessary credit to various enterprises of mutual aid, be called upon to help other organizations ; which will doubtless arise from a need for economic expansion subsequent to the war.

The societies should therefore continue to observe the principles of economy and prudence which they have followed hitherto. In constituting reserve funds for future needs they give a salutary example in thrift to their members. In order not to compromise the success of their enterprise they are careful always to be sure that their advances will be repaid.

2) *Loans of Seeds and of Maintenance*. — In the farming year 1914-1915 the loans of seeds represented the sum of 6,511,125.79 francs, those of maintenance 4,217,470.79 francs. The prices were by quintal (1) 34.50 francs for wheat, 24.40 francs for barley, 34 francs for beans and 23.91 francs for maize. These prices should be considered satisfactory for they include the price of sacks and all costs of management, transport, storage, guarding etc.

The loans of seeds were represented in early years by the following sums :

Season 1907-08	25,628.70
— 1908-09	1,750,360.39
— 1909-10	670,563.42
— 1910-11	1,737,523.49
— 1911-12	55,620.80
— 1912-13	1,786,550.37
— 1913-14	451,175.82

The loans of maintenance amounted to :

in 1908-09	381,960.81
in 1910-11	118,465.72
in 1912-13	58,435.48
and in 1913-14	83,459.75

(1) 1 quintal = 220 lbs

Although the cereal harvest in 1915 was in general good, certain districts which had suffered from drought or hail applied for loans which were granted to them. A total expenditure of 1,566,749 francs — the price of 32,899 quintals of wheat and 24,297 quintals of barley — was thus incurred.

In distributing this grain the administrators aimed especially at buying cereals in the districts in which they were to be distributed, a procedure which had the double advantage of furnishing borrowers with seeds suited to their local climatic conditions and of considerably reducing the costs and difficulties of transport. Unfortunately it could rarely be applied, for there is usually a lack of cereals in the districts in need of loans.

3) *Mortgage Loans.* — The native thrift societies have continued, in view of the continuation of the state of war, to abstain on principle from lending on mortgages. In the exceptional case however of five requests for loans, made by the natives of Nefzaoua before the war, the total sum of 38,789.95 francs was lent in 1915.

During the year 1914-1915 "small mortgage loans of maintenance" were instituted in the caïdate of Sousse in order to allow small proprietors to obtain food without recourse to usury. In the period from 5 February 1915 to 14 August 1916 forty-two such loans were made of sums between twenty and 500 francs, totalling 2,310 francs.

4) *Co-operative Associations.* — In spite of great difficulties, due especially to an insufficient staff and the obstacles placed by the war in the way of providing industry with primary and other material, most of the co-operative societies affiliated to the native thrift societies have developed their activity in 1915.

Independently of the immediate aid they have been able to give their members by placing at their disposal the capital they need, charging far less than the usual rate of interest, these organizations have accustomed the native artisans and traders to co-operation, that indispensable condition of industrial and commercial progress.

The advances they made amounted to 41,185.29 francs in 1913 and to 23,790 francs in 1914, and rose in 1915 to 115,987.49 francs. This sum does not include the numerous advances made by the Revictualling Account to various native enterprises, and especially to the Laboratory of Industrial and Commercial Experiments in order to allow this institution to ensure the activity of its various workshops and furnish important military supplies to the *Intendance*.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

BRITISH INDIA.

1. CO-OPERATION IN TRAVANCORE (1).

The State of Travancore in Southern India adjoins the province of Madras and has an area of 7091 square miles. In 1901 the population was 2,952,157, having increased by 15 per cent. in the foregoing decade. Travancore ranks fourth among native Indian States as regards area and third as regards population.

Provision for co-operation in Travancore is contained in a regulation of 4 April 1914, and in the rules under Section 42 of this regulation which were issued on 17 November 1915.

On 8 July 1916 twenty-three co-operative societies had been registered, one of them being a bank which included among its members not only individuals but also societies, and had for its object the financing of the latter. Of the remaining twenty-two societies two were for production and distribution, one for production only and two for distribution only, while the other seventeen were credit societies all of which except one were formed on the Raffeisen model and on the basis of unlimited liability. Since all these societies had been registered towards the end of the official year, which begins in the middle of August, only a few had actually started work. The bank, the producing and distributing society, one of the societies for distribution only and seven of the credit societies were however in full working order although they had not yet accomplished much.

All but one of the credit societies are intended to help agriculturists, who seem, by all the evidence yet available, to take advantage of them.

By Section 4 of the regulation of 4 April 1914 "the liability of a society, of which a registered society is a member, shall be limited; the liability of a society, of which the object is the creation of funds to be lent to its members, and of which no member is a registered society, shall be

(1) The facts regarding co-operation in Travancore have been communicated to us by Mr. C. Govinda Pillai, Registrar of Co-operative Societies in this State.

unlimited. Where the liability of the members of a society is limited by shares, no member, other than a registered society, shall hold more than such portion of the share capital of the society as may be prescribed by the rules, subject to a maximum of one fifth; or have a claim or interest in the shares of the society exceeding one thousand rupees (1) ”.

The minimum membership of a society, which includes no registered society among its members, is seven.

Where the liability of the members of a registered society is not limited by shares, each member has one vote only. In the contrary case he has as many votes as are prescribed by the by-laws.

Subject to any prior claim of the government in respect of land revenue or any money recoverable as land revenue, or of a landlord in respect of rent or any money recoverable as rent, a registered society is entitled in priority to other creditors, to enforce any outstanding demand for anything due to it from a member or past member : a) in respect of the supply of seed or manure or of the loan of money for the purchase of seed or manure, upon the crops or other agricultural produce of such member or person at any time within eighteen months from the date of such supply or loan ; b) in respect of the supply of cattle, fodder for cattle, agricultural or industrial implements or machinery, or raw materials for manufacture, or of the loan of money for the purchase of any of the foregoing things, upon any such things so supplied, or purchased in whole or in part from such loan, or any articles manufactured from raw materials so supplied or purchased, at any time within three years from the date of such supply or loan.

The liability of a past member for the debts of a registered society, as they existed at the time when he ceased to be a member, continues for a period of two years from the date of his ceasing to be a member.

The estate of a deceased member is liable, for a period of one year from the time of his decease, for the debts of a registered society as they existed at the time of his decease.

The government may remit any stamp duty with which instruments executed by or on behalf of a registered society may at any time be chargeable, as well as any fee payable under any law of registration.

The *Trivandrum Central Co-operative Bank, Limited*, to which we have already alluded, aims at developing co-operative societies in Travancore ; financing them and carrying on banking business with them ; controlling them when they have been affiliated to itself by careful and regular inspection ; and encouraging thrift, self-help, and mutual trust and confidence among its individual members.

The capital of the bank is 100,000 rupees, made up of 1,000 shares of 100 rupees each. Not more than 500 shares may be allotted to members other than societies ; and no member may at any time hold more than ten shares. No member may withdraw or transfer a share which he has not

(1) 1 rupee = 15. 4d.

held for at least one year. Every transfer of a share must have the sanction of the Board of Management and involves payment of a fee of 2 rupees. The value of each share is payable in five instalments of 20 rupees each, the instalments being paid at intervals of at least three months.

The funds of the society must be utilized primarily for the granting of loans to registered co-operative societies. Loans may also be granted to members 1) on the security of their deposits or on their paid-up share capital, not exceeding 90 per cent. ; 2) on the security of Government of India promissory notes ; 3) on the personal security of the borrower and two sureties from among the members.

No loan to an individual member shall be granted in the first instance for more than three months, nor to a society member for more than two years ; but the Board of Management may from time to time grant extension of loans, no extension exceeding the original period. The rate of interest charged on loans shall not exceed $9\frac{1}{2}$ per cent. per annum and a rebate of 2 per cent. per annum shall be allowed on all punctual repayments.

One fourth of the net profits of each year shall be carried to the credit of the reserve fund. One eighth shall be paid as honorarium to the secretary. Of the balance 10 per cent. shall be set apart to meet the charges of inspection, the remainder being divided among all the members, subject to a maximum of 12 per cent. per annum, according to the paid-up share capital held by them during the year. The reserve fund shall be one and indivisible : it shall not be drawn upon except to make losses good, and shall be invested as the registrar directs.

This bank has now 85 members, namely 69 individual members and 16 society members — including 15 associations of agricultural credit. Hitherto its loans on personal guarantees have been negligible but it has lent to its society-members 27,560 rupees of which sum 27,310 rupees have not yet been repaid. Its paid-up share capital amounts to 8,340 rupees and its loans to the government to 29,800 rupees.

The Trivandrum Co-operative Distributive Society, Limited, is a society of a different type. It has a capital of 5,000 rupees consisting of 1,000 shares of 5 rupees each. There is an entrance fees of six annas (1) a share. No member may hold in the first instance more than twenty shares ; but members may use the dividends earned by them in the purchase of additional shares until they hold altogether a maximum of twenty-five.

Profits must be disposed of as follows : one fourth shall be carried to the credit of the reserve fund ; a bonus, not exceeding 10 per cent. of the net profit or a maximum of 250 rupees a year, shall be paid to the secretary ; out of the remaining profits a dividend not exceeding $7\frac{1}{2}$ per cent. a year shall be paid on the paid-up share capital ; any balance shall be paid to the members as a bonus, proportionately to the purchases made by them.

The following table shows the activity of agricultural co-operative societies in Travancore in the year which ended on 15 August 1916.

(1) 1 anna = 1 penny.

Activity of Agricultural Co-operative Societies in Travancore.

Kind of Society	Number of Societies	Number of Individual Members	Amount of Loans on Personal Gua- rantees	Value of Pro- ducts sold to Members	Pur- chase of Members Products	Loans not repaid	Paid up Share- Capital	Costs of Admin- istration
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Unlimited Liability Societies	17	551	27,577	—	—	27,210	1,320	421
Limited Liability Societies	1	27	610	4,276	4,090	610	1,350	384
Total . . .	18	578	28,187	4,276	4,090	27,820	2,670	805

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2. THE MADRAS PROVINCIAL CO-OPERATIVE BANK LIMITED. — M. R. Ry. M. Shiva Rao Avl. of Puttur, S. Canara, in *The Madras Bulletin of Co-operation*, Vol. VIII., No. 1, September 1916.

The Imperial Committee on Co-operation, whose report we resumed on another occasion (1), suggested "the creation in every province of a provincial or apex bank", which should deal eventually with central banks only and be directed by a board of management, but in which the ultimate control should be vested in the federated societies. The committee was of opinion that the Madras Central Urban Bank, Limited, could be converted, provided certain essential changes were carried out, into a Provincial Bank, such as the committee contemplated. This proposal was not however favourably received by the co-operators of the presidency, on whom therefore it has become incumbent to form a Provincial Bank. It is proposed to associate for this purpose all the co-operative societies in the presidency in a central union, and the draft by-laws for the scheme have been approved by the Registrar of Madras Co-operative Societies and the Commissioner of Revenue Settlement.

The capital necessary to the undertaking is estimated at 200,000 rupees, to form which each of the 2,000 societies in the presidency must take on an average a single share of 100 rupees. It is proposed to spread the payments on account of shares over ten years, to treat half the amount

(1) See *International Review of Agricultural Economics*, January and March 1916.

of each share as reserve liability in the case of agricultural credit societies and supervising unions, and to require an entrance fee of one rupee, so that any society wishing to take a share may remit 6 rupees — or 11 rupees if it be a non-agricultural society — to its own Central Bank. One thousand additional shares will be offered to individual capitalists, on condition that in their case one tenth of the value of each share be paid with the application and the rest on allotment, and with the further reservation that shares will be allotted to individuals only after at least an equivalent number of shares have been taken up by the societies. This proviso will secure a majority of votes to the societies.

It is hoped that if the Provincial Bank attain to a *working* capital of 1,000,000 rupees it will be able to lend to Central Banks at a rate not exceeding $6\frac{3}{4}$ per cent.

Deposits will be received by the Provincial Bank at rates not exceeding the lowest now offered by Central Banks, namely 6 per cent. for long term deposits and $5\frac{1}{2}$ per cent. and 5 per cent. for short terms.

It is proposed that all the overdrafts now granted by the Bank of Madras to Central Banks be transferred to the Provincial Bank, the latter granting in its turn an equivalent overdraft to each affiliated Central Bank and charging either the same rate of interest as that now allowed by the Bank of Madras or one quarter per cent. more.

Deposits received by Central Banks may be transferred, if there be no outlet for their expenditure in such banks, to the Provincial Bank which will protect the receiving bank from loss by paying the regular rate of interest on them.

If the bank rely mainly on society shareholders for its share capital, it will not be necessary to declare a higher dividend than 6 per cent.

The board of management of the Provincial Bank will consist of representatives of individual shareholders, of Central Banks and of primary societies, the two latter groups forming a majority. The board will elect a standing committee of at least three members, who will, together with the secretary, direct the business of the bank according to standing orders issued by the board. The latter will probably meet once in three months.

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3. CO-OPERATIVE DISTRIBUTION IN NORTHERN INDIA. — Mr. A. C. Chatterjee in *Indian Journal of Economics*, April 1916, quoted in *The Madras Bulletin of Co-operation*, Vol. VIII. No. 1, September 1916.

Co-operative Seed Supp.y. — In the villages of Northern India the rural lender lends seed grain as well as money and to a large extent. Unfortunately the cultivator has, when he borrows the grain at sowing time, absolutely no choice with regard to the quality of the seed that he gets. After a famine the lenders often refuse to advance it except at prohibitive

prices ; and generally they take advantage of every possible circumstance to exploit the cultivators as much as they can.

Under the alternative and co-operative system a credit society or a central bank obtains a supply of approved seed through the Agricultural Department. It is sold at market rates or at something above cost price to selected members living within a convenient distance of the centre of distribution. Only persons known to be good and careful husbandmen are supplied and the cultivation is supervised by trained officials of the Agricultural Department. When the crop has been harvested the seed is cleaned and graded, and when it has been passed by experts it is bought back by the bank or society at a slight premium over market rates. Adequate arrangements are made for storage in specially constructed godowns. In the following season a limited quantity of the stored seed is sold to selected members while the bulk is disposed of at market rates to the general body of members. The distributing agency stipulates that it may buy back the produce of selected cultivators if this prove to be of sufficiently good quality. The general body of members may dispose of their produce in the open market. All transactions are in cash, and a member without enough ready money to buy must borrow from a credit society.

This system has had satisfactory results in freeing the cultivators from bondage to the usurers and in notably improving the quality of crops.

Co-operative Water Supply. -- The Agricultural Department is bearing the initial cost of an experiment in establishing a co-operative water supply, namely of pumping water in Sultanpur District from the Gumti to irrigate the fields of members of two or three adjacent credit societies. The cost will eventually be repaid in instalments by the societies, who will levy a rate from each member proportionate to the area irrigated.

If the experiment prove successful, as it promises to do, there is every prospect of organizing water supply societies in suitable tracts to pump water from rivers, streams and large, shallow lakes and supply it to agriculturists, whether or not they belong to credit societies, although if all of them belong to such the collection of dues will of course be simplified. There might be like organizations to allow pumping installations to be attached to wells having large supplies of water, especially tube wells, in tracts where they can be sunk with advantage. It is not very often possible for individual agriculturists to undertake the cost of a pumping installation, but a number of them might combine to do so.

FRANCE.

A NEW SYNDICATE FOR MECHANICAL AGRICULTURE. — *Journal d'agriculture pratique*, Paris, 11 January 1917.

A certain number of agriculturists in the *arrondissement* of Pontoise have formed themselves into a trade syndicate in order to acquire traction

engines and to undertake without delay ploughing and other agricultural operations which have for the present been suspended.

The capital has been subscribed by the members in proportion to the number of hectares (1) of arable land they hold and has allowed the purchase of the following machines :

18 Emerson	20	horse	power	traction	engines
6 Arion	40	"	"	"	"
2 Avery	35	"	"	"	"
2 "	16	"	"	"	"
3 Avance	20	"	"	"	"
1 Bull	16	"	"	"	"

that is 32 traction engines at a total cost of about 500,000 francs (2).

The activity of the syndicate will affect twenty-two communes, and about 7,200 hectares of arable land fitted for the intensive culture of corn and sugar beetroot. The scarcity of agricultural labour in this district — as a result of the mobilization of Belgian workmen, the proximity of factories of war material and the prohibition to employ prisoners of war which was long in force — decided the agriculturists to use these new methods of work as a matter of urgency.

Counting the traction engines already bought by individuals outside the syndicate, there are now forty of these machines in the *arrondissement* of Pontoise, and the possibility of shortly using double that number ought to be realized.

UNITED STATES.

THE DEVELOPMENT OF THE CO-OPERATIVE ASSOCIATIONS CONTROLLING DAIRY PRODUCTION IN THE UNITED STATES FROM 1906 TO 1916 — *Hoard's Dairyman*, Fort Atkinson, 3 November 1916.

The movement in favour of co-operative societies of breeders and producers in order to inspect the individual production of milch cows, for the purpose of selection, began in Michigan in 1906 and has in ten years spread through thirty-eight States. To-day there are 346 of these associations.

(1) 1 hectare = 2.47 acres.

(2) 1.2611 francs = 1s at par.

They are most numerous in the following States :

Wisconsin	52	Pennsylvania	19
New York.	47	Oregon	15
Vermont	38	Illinois	12
Iowa	23	Maine	11
Minnesota	22	New Hampshire	11
Ohio.	20	Michigan.	10

The following table shows the complete development of these associations since they were founded.

Development of the Co-operative Associations inspecting the Production of Milch Cows in the United States from 1 July 1906 to 1 July 1915.

States	Number of associations active in											
	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	
Michigan	1	4	2	5	4	3	4	4	3	3	10	
Maine	—	—	3	4	3	6	5	4	5	8	11	
New York	—	—	1	1	3	9	18	21	29	35	47	
Vermont	—	—	—	2	8	10	11	17	28	33	38	
Iowa	—	—	—	2	5	4	8	7	8	13	23	
California	—	—	—	1	3	2	4	4	5	7	9	
Wisconsin	—	—	—	9	10	10	8	11	24	37	52	
Nebraska	—	—	—	1	0	0	0	3	2	3	4	
Colorado	—	—	—	—	1	1	2	1	1	0	0	
Pennsylvania	—	—	—	—	1	1	2	2	7	14	19	
Ohio	—	—	—	—	1	0	0	1	4	5	20	
Maryland	—	—	—	—	—	1	3	3	2	4	7	
Illinois	—	—	—	—	—	4	3	2	7	3	3	
Washington	—	—	—	—	1	3	1	0	0	1	12	
Minnesota	—	—	—	—	—	3	7	10	9	11	22	
New Hampshire	—	—	—	—	—	1	1	1	4	8	11	
Oregon	—	—	—	—	—	1	1	1	7	11	15	
Utah	—	—	—	—	—	1	0	0	1	1	0	
Massachusetts	—	—	—	—	—	2	2	2	3	0	4	
Virginia	—	—	—	—	—	2	2	2	0	0	2	
Kansas	—	—	—	—	—	—	1	1	1	0	1	
Indiana	—	—	—	—	—	—	2	2	2	3	7	
Kentucky	—	—	—	—	—	—	1	1	1	0	1	
Missouri	—	—	—	—	—	—	—	—	2	1	2	
New Jersey	—	—	—	—	—	—	—	—	2	3	4	
West Virginia	—	—	—	—	—	—	—	—	1	1	3	
Connecticut	—	—	—	—	—	—	—	—	1	3	6	
North Carolina	—	—	—	—	—	—	—	—	2	0	0	
Louisiana	—	—	—	—	—	—	—	—	1	0	0	
South Dakota	—	—	—	—	—	—	—	—	1	1	3	
Nevada	—	—	—	—	—	—	—	—	—	1	0	
Arizona	—	—	—	—	—	—	—	—	—	—	2	
Rhode Island	—	—	—	—	—	—	—	—	—	—	2	
Delaware	—	—	—	—	—	—	—	—	—	—	2	
Idaho	—	—	—	—	—	—	—	—	—	—	2	
Mississippi	—	—	—	—	—	—	—	—	—	—	1	
Montana	—	—	—	—	—	—	—	—	—	—	1	
Tennessee	—	—	—	—	—	—	—	—	—	—	1	
Total	1	4	6	25	40	64	62	100	163	210	346	



Part II: Insurance and Thrift

UNITED STATES.

STATE HAIL INSURANCE IN NORTH DAKOTA.

SOURCES :

BIENNIAL REPORT TO THE THIRTEENTH LEGISLATIVE ASSEMBLY OF THE HAIL COMMISSIONER
ON HAIL INSURANCE FOR THE TERM ENDING, December 31st, 1912, Bismarck, N. D.
BIENNIAL REPORT TO THE FOURTEENTH LEGISLATIVE ASSEMBLY OF THE HAIL COMMISSION
ON HAIL INSURANCE FOR THE TERM ENDING DECEMBER 31ST, 1914. Journal Publishing Co., Devil's Lake, N. D.
STATE HAIL INSURANCE LAW, NORTH DAKOTA. W. C. Taylor, Commissioner of Hail Insurance, 1916.

North Dakota has been the first and so far the only State in the Union which has placed a law for the State insurance of crops against loss or damage by hail on its statute books. The venture is therefore highly important as a test of the ability of the State, from a practical standpoint, to compete with privately owned and managed insurance enterprises. We will examine the provisions of the Act and the results as set forth in the two biennial reports so far issued by the Commissioner of Hail Insurance.

§ I. THE ACT.

The State Hail Insurance act of North Dakota first went into operation in January 1911, and after two years' experience was amended in 1913.

The law as it now stands provides for a Hail Insurance Department which shall insure growing grain crops in any county in the State against loss or damage by hail. County, township, city and village assessors, at the

time of listing property for assesment each year, are required to inquire of the party assessed how many acres of crop such party may wish to insure for the year, informing him that as a premium for this insurance a payment of 30 cents for each acre insured must be made. As originally enacted, the law had fixed the rate for insurance premium at 20 cents per acre of grain insured, but the experience of the first two years indicated that this rate was too low, and it was therefore raised to 30 cents, as above.

The assessor is required to fill in the forms for all such insurance agreements, to collect the 30 cents per acre with an additional half cent per acre as an application fee, and to forward these forms and moneys to the county auditor, who files the applications and turns over the moneys to the county treasurer.

The insurance is in force and effect from the time of filing the application in the office of the county auditor until the grain is cut, but in no case later than September 15th of each year.

On the 1st of June, July and August, the county auditors make a list of all hail insurance applications filed with them, and forward same to the Department of Hail Insurance at the State capital, Bismarck.

Meantime, the county commissioners at their April board meeting shall appoint for each county a competent resident to act as official adjuster of losses and damage caused by hail to any crop insured under the act. The State Commissioner of Hail Insurance must be notified by the county auditors of such appointments which only become valid on receiving his approval, and he has power to remove or discharge any such official adjuster for incompetency or neglect.

It is the duty of these official adjusters to adjust losses or damages caused by hail to crops within their districts insured under the act.

When any party thus insured has sustained loss by hail he promptly notifies the Commissioner of Insurance, who directs an official adjuster to visit the place and estimate and adjust such loss. In so doing it is his duty carefully to inquire into the conditions of the crop before the loss occurred, as to whether it was poor, medium, or good, and if he deems it necessary he has power to call witnesses to testify as to the said condition, and he shall make his estimate and adjustment after ascertaining the condition before and after the loss occurred. In estimating the loss the adjuster shall allow as damages the proportion which the crop as damaged bears to the crop if no such loss had occurred. If the total value of the crop insured be less than eight dollars per acre then in case of total loss the insured shall receive the total value thereof; if the loss be partial he shall receive that percentage of value which the loss bears to the total value of the crop insured. If the value of the crop be more than eight dollars per acre, the insured shall receive that percentage of the maximum of eight dollars which the loss bears to the total value of the crop, provided however that in no case shall more than eight dollars per acre be allowed as the maximum for wheat, flax, oats, barley, corn, rye, and other grains.

Should the party insured refuse to accept the adjustment made by the official adjuster he shall have the right to appoint one disinterested

person as adjuster and the official adjuster shall appoint another, and the two shall elect a third, and the three shall then proceed to adjust the loss in the manner above described, the judgement of the majority to be binding upon both parties as the final determination of said loss.

As compensation for their services the official adjusters receive five dollars a day and actual expenses while engaged in the performance of their duties, and all persons called to assist them in adjusting losses shall receive \$2 a day while so engaged.

The Commissioner of Hail Insurance, on receiving from the county auditors the complete returns showing the number of acres insured for the year, shall sum up the total hail insurance fund available for that year; when he shall have received a complete return from all of the hail losses in the State as adjusted and allowed he shall sum up the total of such amounts for that year, and he shall sum up the expenses of his office in accordance with rules prescribed in the Act. The total of such expense account shall first be deducted from the total amount of the hail insurance receipts for that year and paid, and if the balance remaining is sufficient all hail losses shall be paid in full as allowed by the adjusters, but if the expenses and hail losses shall exceed the amount of hail insurance receipts for that year, the expenses shall be paid first and the losses shall be paid pro rata. Should there be a surplus after paying expenses and losses, such surplus shall remain in the State treasury in the hail insurance fund to be drawn upon in future years in which there may be a deficiency.

When the Commissioner of Hail Insurance has figured up the whole year's business as indicated above, he shall prepare and furnish to the State auditor a certified list of the losses arranged by counties, with the names and addresses of persons who have suffered loss and are entitled to compensation, the appraised losses, and the amount to be paid to each person. The State auditor shall then draw warrants for these amounts upon the State treasurer, to be charged to the hail insurance fund, and such warrants shall be mailed forthwith to the persons entitled thereto.

§ 2. THE ACT IN OPERATION.

Hail Commissioner W. C. Galbreath in drawing up the first biennial report dealing with the years 1911-1912 remarks:

«The fact that the State had entered the insurance field subjected the law and its methods to criticism, and its low rate was made the target of ridicule by those who were opposed to the measure. During the year 1911 there were 1,011 policies written and \$ 26,109,144 collected in premiums. When the expenses of conducting the affairs of this company, including books, stationery, salaries and fees for adjustment of losses, which amounted to \$ 3,421,63, leaving a balance of \$ 1,129.33 for future contingencies, were deducted, there was distributed among the policy holders the sum of \$ 21.188,03, or seventy cents on the dollar for the losses sustained».

The year 1912 showed a large increase of business over 1911; 2,205 policies were written; the total revenue received amounted to \$64,840 and the disbursements to \$ 63,164, leaving a balance of \$ 3,175 in the State treasury for future contingencies. The fees obtained were distributed as follows:

Paid deferred losses of 1911	\$ 358,40
Agents adjusting losses during 1912	2,447,62
Losses for 1912	57,936,69
Clerk hire	2,160,00
Postage	43,00
Printing	103,40
Advertising	9,95

1912 was an exceptionally hard year for hail insurance, and the losses from this source were probably unprecedented in North Dakota. The State Insurance department was therefore only able to pay fifty five cents on the dollar for losses incurred but the adjustments were made on a very liberal basis.

It was then that it became apparent that the rate of 20 cents per acre insured was an inadequate premium, and it was urged that the charge should be raised to 30 cents, which was done when the Act was amended in 1913. An alternative to raising the premium suggested in the report for 1912 was that the legislature should fix a minimum rate of five cents or less per acre, and levy a general tax on all real estate in accordance therewith, thus covering insurance for all, and making a rate so low and satisfactory that hail insurance would not be a burden to any; but, as we have seen, the advocates of a higher premium rate won the day.

The second biennial report, issued in December 1914, sums up the four years' work then accomplished as follows: the losses incurred in 1911 were settled on the basis of seventy cents on the dollar; in 1912 fifty-five cents on the dollar; in 1913 eighty-eight cents; and in 1914 sixty-five cents on the dollar.

These results must be considered as decidedly unfavourable, for if applied to a mutual hail insurance company they would mean that members would be required to pay, in addition to the regular premium, extra assessments respectively of 30 %, 45 %, 12 %, and 35 %, and by that time, as the report points out, members would probably have had quite enough of mutual insurance.

But in analysing the results of this venture into the realm of State hail insurance certain facts and factors must be taken into account.

During the years 1911 and 1912 the rate charged by the State was twenty cents per acre, or 2 ½ % per cent on the dollar; at the same time

the rates charged by the old stock companies ranged from 6 $\frac{1}{2}$ to 8 per cent on the dollar. The State insured one hundred and sixty acres of grain for thirty-two dollars and fixed the loss maximum at \$ 1,280. The old stock companies insured the same acreage for not less than sixty-five dollars, with a loss maximum of \$ 1,000. In other words, the State gave the insured twenty-eight per cent greater value to his crop than did the private companies, while the actual cost was very much less in the former than in the latter case, based upon either total or partial loss. At the same time the loss paying power of the State, based upon the premium income, was insignificant from a comparative standpoint. State hail insurance reached high tide in 1912, when the premium income amounted to \$ 64,840 while the income in this State of seven private companies averaged in excess of \$ 152,000 each.

Nor is that all. The stock companies will accept the hazard of only a certain limited amount of insurance in each section or each township, while the State takes the risk of the entire farm, even though it embraces several contiguous sections. Finally, nearly all the private companies write hail insurance in several States, and this wide diffusion of risk naturally minimises the chance of loss.

Thus it will be seen that the State has laboured under the disadvantages of a comparatively low rate, small income, and extreme chance of loss for reasons above noted. On the side of expense of management the advantage is decidedly in favour of State insurance; but even this advantage is largely theoretical on account of the small volume of business transacted.

§ 3. BALANCE SHEETS.

The following statements show the condition and affairs of the State Hail Insurance department for the four years 1911 to 1914 inclusive.

1911. — RECEIPTS.

Receipts by State Treasury during 1911 from country treasurers		\$26,119.54	
Amounts overpaid by county treasurers:			
Divide county	\$10.00		
Bottineau county	10		
Morton county	4.80	14.90	26,104.64

DISBURSEMENTS.

Paid for losses	\$21,188.03	
Paid agents for adjusting losses	864.55	
Clerk hire	1,580.00	
Postage	237.88	
Printing	384.75	
Advertising	36.15	
Office supplies	170.95	
Express	47.35	
Total	\$24,609.66	
Refunds to Bottineau county	10	
to Divide county	10.00	24,619.76
Balance on hand Jan. 1st, 1912		\$1,499.78
Amounts not paid. Loss adjustments not ap- proved	322.00	
Adjusters' fees not approved	43.65	
Refund due Morton county	4.80	370.45
Surplus or excess of assets over liabilities		\$1,129.33

POLICY EXHIBIT.

Number of policies issued in 1911	1,011
Number of losses reported in 1911	131
Number of losses allowed in 1911	130
Number of policies effected	131
Total amount of losses allowed for season of 1911	\$30,780.63
Expense paid for adjusting same	1,011.70
making it cost 3.28 % to adjust the losses.	
Approved adjustments were paid at 70 % of loss allowed for 1911.	

1912. — INCOME.

Cash in hands of State Treasurer December 21st, 1911 . .	\$1,499.78
Cash received as payment of policies in 1912	64,840.37
<hr/>	
Total amount received during the year	\$66,340.15

DISBURSEMENTS.

Paid losses incurred during the year 1911 . .	\$358.40
Paid agents for adjusting same	47.15
Paid losses incurred during the year 1912 . .	57,936.69
Paid agents for adjusting same	2,447.62
Clerk hire	2,160.00
Postage	43.00
Printing	103.40
Advertising	9.95
Refund to Morton County	4.80
Special adjuster's expenses	53.25

Total amount of disbursements during the year 1912 63,164.26

Balance cash on hand Jan. 1st, 1913 \$3,175.89

POLICY EXHIBIT.

Number of policies issued in 1912	2,505
Number of losses reported in 1912	433
Number of losses allowed during 1912	411
Number of policies effected	391
Total amount of losses allowed for season 1912	\$105,339.54
Expenses paid for adjusting same	2,447.62
making it cost 2.32 % to adjust the losses.	

Approved adjustments were paid at 55 % of loss allowed in 1912.

INCOME.

Cash in hands of State Treasurer Dec. 31st, 1912	\$3,175.89
Cash received as payment of policies issued in 1913.	27,214.37
Total amount received during the year	<u>\$30,390.26</u>

DISBURSEMENTS.

Paid losses incurred during 1912	\$1,559.42
Paid losses incurred during 1913	24,890.78
Paid agents for adjusting same	694.53
Clerk hire	1,927.50
Postage	53.86
Printing	377.00
Express	21.22
Total disbursements during 1913	<u>\$29,524.31</u>
Balance cash on hand Dec. 1st, 1913	\$865.95

POLICY EXHIBIT.

Number of policies issued in 1913	733
Number of losses reported in 1913	91
Number of losses allowed in 1913	89
Number of policies effected	88
Total amount of losses allowed for the season of 1913	\$28,284.98
Expense paid for adjusting same	694.53
making it cost 2.45 % to adjust the losses.	

Approved adjustments were paid at 88 % of loss allowed for 1913.

1914. — INCOME.

Balance, cash in hands of State Treasurer Dec. 1st, 1913 . . .	\$865.95
Cash received as payment of policies issued in 1914. . . .	27,771.72
Total amount received during the year . . .	<u>\$28,637.67</u>

DISBURSEMENTS.

Paid W. D. Lukins, official adjuster Williams County for adjusting one loss for 1913	10.00
Paid losses incurred during 1914	24,985.39
Paid agents for adjusting 1914 losses	871.71
Paid clerk hire	1,800.00
Paid postage	89.98
Paid printing	80.67
Paid miscellaneous supplies.	10.25
Paid for publishing notices of condition of Hail Department for 1913	14.09
Total disbursements during year 1914.	<u>\$27,862.09</u>
Balance cash on hand Dec. 1st. 1914	775.58

POLICY EXHIBIT.

Number of policies issued in 1914	761
Number of losses reported in 1914	114
Number of losses allowed in 1914.	113
Number of policies effected	114
Total amount of losses allowed for season of 1914	\$38,439.07
Expense paid for adjusting same	871.71
making it cost 2.26 % to adjust the losses.	
Approved adjustments were paid at 65 % of loss allowed for 1914.	

BRITISH INDIA.

CATTLE INSURANCE IN BURMA.

by A. E. ENGLISH, I. G. S.

Registrar of Co-operative Societies, Burma.

After some six years' experience in the introduction of co-operative credit into the various districts of Burma it became clear that one of the chief causes of indebtedness was the loss of plough cattle by death from disease or accident. In accordance with the obvious fact that insurance providing for the replacement of cattle so lost, and for the evolution of a spirit of corporate responsibility for the tending of cattle, was preferable to the mere granting of credit to replace such dead beasts, efforts were made to discover a simple and suitable system of insurance of plough cattle suitable for Burma.

The matter was complicated because Burma has a variety of climates, crops, crop seasons, cattle and systems of cultivation and methods of cattle tending. Speaking broadly there is the southern wet zone where rice is cultivated in the rains (June to November), where the rainfall varies from 80 to 150 inches and where it is never cold; then there is the northern wet zone comprising five hilly districts where the rainfall averages 80 inches and rice is the main crop, and where there is a distinct cold season; and between these there is the central dry zone with a rainfall varying from 15 to 40 inches, liable, where not irrigated, to serious droughts and having for two or three months a very high temperature (100 to 115 degrees. F.). In this dry area there is a large variety of crops. On the uplands are grown cotton, sessamum, ground-nut, jowar etc. in the rainy months (June to November); sugar-cane, rice, onions and pulses are grown throughout the year under irrigation; and pulses, potatoes, chillies, and other miscellaneous crops are raised in alluvial land along the river in the dry weather (November to April).

In the north and south wet zones the buffalo was till recently the principal draught beast. In the Delta districts, however, the buffalo's susceptibility to rinderpest has brought about an ever extending use of bullocks, and there is now a large annual export of bullocks bred in the dry zone to Lower Burma for ploughing and carting purposes. In the northern wet

zone, where soils are heavy and weeds strong and where cattle are also used for timber extraction, the buffalo remains in favour, but the village herds are still liable to terrible epidemics of rinderpest.

The systems of cattle tending differ widely in the wet and dry zones. In the southern wet zone the grazing ground system is the rule. Each village has an area, generally uncultivable, allotted to it for grazing purposes, and in this area the village cattle have to pick up a precarious living. In many cases these areas are in the rains seas of mud, covered with a trampled growth of coarse muddy grasses. They provide the best possible means for spreading infectious disease and the cattle that have to exist on them naturally have an excellent chance of dying from disease, starvation, or exposure. The mortality in such districts is very high and many cultivators regard four years as the working life of an imported beast. It is probable that a premium of 15 per cent would not cover the risk in this part of the country. In the northern wet zone the area of "jungle" available for grazing is as a rule much larger and there is a certain amount of segregation during grazing. Violent epidemics are unusual except from the unusually infectious disease of rinderpest. These jungles, however, contain a danger from which the southern grazing ground is free and that is wild cattle — bison, deer and pigs from which anthrax and other diseases are undoubtedly communicated to tame cattle. If insurance be ever extended to the northern districts a high rate of premium will be necessary. In the dry zone districts the custom is that draught cattle, which are almost entirely bullocks, are stall fed, while cows and calves are grazed in herds in scrub jungle near the villages. The stall fed draught cattle are carefully fed and housed and seldom suffer from epidemics. The breeding herds are tended with much less care and suffer from scanty fare, bad housing and dirty pens. In a season of drought the cows and calves die in large numbers. Disease also kills them off in quantities. Except in a few very restricted areas cows are not used by the Burmese for milking purposes and it is somewhat surprising that with the treatment they get they produce such good draught stock.

In view of the above conditions it was obvious that the first experiments in insurance must be restricted to draught cattle, and to such cattle only in selected dry zone districts where the stall feeding and careful tending of such animals was the rule. The Registrar of Co-operative Societies suggested the adoption of a system whereby animals would be valued half-yearly and insured for a half-year at a time, and it was decided to limit the experiment in the first instance to five adjacent districts, i. e. Mandalay, Shwebo, Sagaing, Kyaukse and Meiktila, in all of which such statistics as were available showed that violent epidemics of infectious disease among draught cattle were unusual.

Co-operative cattle insurance was discussed at the Provincial Agricultural and Co-operative Conference held at Mandalay in 1911, after six mutual co-operative cattle insurance societies had been formed, and it was resolved that insurance was desirable and feasible and that the scheme should be proceeded with. In the period between July 1911 and June 1912 seventeen, and in the year 1912-1913 thirty-six societies were formed. It

then became evident that in the early years, to render certain payment of part at any rate of the indemnity, reinsurance was essential. It also appeared that insurance would not become really popular unless deaths from rinderpest were covered.

The whole subject was again discussed at the Agricultural and Co-operative Conference held at Mandalay in August 1913: and in a meeting which over 300 chairmen of agricultural credit societies attended it was then resolved that the premium rate should be raised from $3\frac{1}{8}$ per cent. to 5 per cent. per annum, and that rinderpest deaths should be covered; that a central reinsurance society was essential; and that to eliminate the risk of fraud membership of cattle insurance societies should be restricted to persons who are members of co-operative credit societies.

The sanction of the Secretary of State for India to the grant, by way of an interest free loan, to the central reinsurance society of assistance to enable it to meet indemnities in the early years, was received early in 1915. The amount to be drawn in any one year is not to exceed Rs. 25,000 (1) and repayments are to be made from the sixth year onwards from the central society's reserve fund.

Cattle insurance was again discussed at the Agricultural and Co-operative Conference held at Mandalay in August 1915; and it was resolved that the central reinsurance society should be formed, that in the five districts to which operations were at present to be confined every credit society should form an annexed cattle insurance society, and that for purposes of supervision a cattle insurance society should be admitted into the union to which the credit society, to which it was annexed, belonged.

The Upper Burma Central Co-operative Cattle Reinsurance Society, Limited, was registered in August 1915. The membership consists of some fifteen honorary members — persons interested in co-operative and agricultural improvement — and of affiliated village cattle insurance societies. It receives half the premia paid to societies by members and insures half the risk undertaken by such societies. Indemnities due are paid by the manager on receipt of a cattle death report giving full details. It is managed by a general meeting, committee and a manager. For the present the registrar is acting as honorary manager. To safeguard the interests of government, a government representative is a member of the general meeting and has five votes. It has a general fund, consisting of the current year's premium income, and a reserve fund consisting of the net proceeds of past years. The latter fund is banked with the National Bank of India and the general fund is kept in the Upper Burma Central Co-operative Bank. Societies submit to the manager of the central society half-yearly statements showing the names of members and number, descriptions and value of cattle insured.

The by-laws of the village mutual cattle insurance societies are based on those used by French mutual societies. There are the usual exceptions of deaths from war, theft etc., and societies do not pay indemnities where

(1) 1 rupee = 15 4d.

the sanitary regulations as to contagious disease have been broken. Membership is restricted. Valuations are made half-yearly by three experts appointed yearly by the general meeting. Substitution is permitted if values are equal. The premium rate is 5 per cent. per annum payable half-yearly in March and September. Funds are deposited with the local credit society at call. Deaths have to be vouched for by the experts and the society only pays two thirds of the value insured. The skin and flesh belong to the society which sells them, if saleable. Hence the owner stands to get two thirds of the value insured, whether his animal dies of a contagious or non-contagious disease. Societies are managed by a general meeting and a committee.

Pending the formation of the central reinsurance society, the formation of village societies was restricted, and in the period July 1914 to June 1915 only seven such societies were registered. In the year July 1915 to June 1916, 247 societies have been registered and a further considerable increase is expected in the coming year. Of the 305 village societies in existence on 30 June 1916 about a hundred had not yet become affiliated to the central society. The bulk of the new societies registered only started business in March or April 1916, and results cannot therefore be appreciated till October next, at the earliest.

Judging by the steady accumulations of funds by those societies which have been working for several years, and in view of the fact that only two thirds of the value is paid in indemnity, there is ground for believing that the 5 per cent. rate of premium is unnecessarily high and somewhat likely to hinder the progress of insurance. Burma has, however, except in the northern wet zone, enjoyed a remarkable measure of immunity from rinderpest in the last ten years. As it is yet too early to say that this immunity is due to the improvement in veterinary control, and not rather to good fortune and disease cycles, it is perhaps better to err on the safe side in the matter of the premium rate.

Many of the villages in which cattle insurance societies are formed are in tracts only partially served by the Post Office, and there is consequently difficulty both in remitting premia to the central society and in the payment of indemnities. Such difficulties of course check expansion but they will decrease with time.

In three areas during the year ending 30 June 1916 epidemic disease — anthrax — appeared and accounted for mortality above the average.

There is every indication that the adoption of co-operative cattle insurance in these five districts where co-operative credit is already well established will promote better protection of cattle against disease, better relations with the Veterinary Department, and a decrease in mortality.

The statements given below show results to 30 June 1916. It has not been necessary to draw upon the government guarantee loan.

Cattle are at present often undervalued: they average about Rs.30 per head whereas a truer average would be Rs. 40. The proceeds of skin and flesh have exceeded expectations.

The societies are audited, along with the agricultural credit societies

to which they are annexed, by the staffs of society paid and government auditors, supervision being done by the inspectors maintained by unions of credit societies.

It is yet early to gauge results or to prophesy, but it may be said that the principles of insurance appeal to the Burman and that in the districts where a commencement has been made the co-operative idea has taken firm hold. Thus in the Kyaukse district there is one agricultural co-operative society (credit) for every 1050 acres of cultivated land, while, in addition to co-operative credit, considerable progress with co-operative production and sale has been made in the districts of Māndalay, Sagaing and Shwebo. If the high premium rate do not act as a deterrent, and if minor difficulties connected with remittance can be eliminated, there is no reason apparent why co-operative insurance of cattle should not become firmly and widely established.

I. — *Operations of Cattle Insurances Societies in Burma.*

On 30 June 1916		Amount of risk insured on 30-6-16	Premia collected during the year	Number of Animals.		Claims paid during year	Cost of management during year	Funds at end of year	Amount of risk reinsured.	Amount of premia for re-insurance.
Societies	Members			Insured on 30-6-16	Lost during year					
		Rs	Rs			Rs	Rs	Rs	Rs	Rs
305	5,045	287,051	9,737	7,929	75	685	219	10,671	113,050	4,022

II. — *Operations of the Upper Burma Central Cattle Insurance Society.*

No. of affiliated societies.	Proportion of risk affiliated societies reinsured	Amount of risk reinsured.	Premia collected during year to 30-6-16	Number of animals covered by affiliated societies.		Claims paid to affiliated societies.	Cost of management.	Funds in hand at end of year 30-6-1916	
				Insured.	Lost.			General Fund.	Reserve Fund.
		Rs	Rs			Rs	Rs	Rs	
305	1/2	113,050	4,022	6,209	37	247	148	2,113	1,513

Part III: Credit

AUSTRIA AND HUNGARY.

AGRICULTURAL CREDIT IN BOSNIA AND HERZEGOVINA.

OFFICIAL SOURCES :

DIE LANDWIRTSCHAFT IN BOSNIEN UND DER HERZEGOVINA (*Agriculture in Bosnia and Herzegovina*) Vienna, 1899.

VERWALTUNGSBERICHTE FÜR 1906-1911 (*Government Reports for 1906-1911*).

OTHER SOURCES :

V. HOROWITZ (E. R.) : DIE BEZIRKUNGSUNTERSTÜTZUNGSFONDS IN BOSNIEN UND HERZEGOVINA (*The District Loan Funds in Bosnia and Herzegovina*) Vienna, 1892.

SCHMID (DR. F) BOSNIEN UND HERZEGOVINA UNTER DER VERWALTUNG OESTERREICH-UNGARNS (*Bosnia and Herzegovina under the Rule of Austria-Hungary*) Leipzig, 1914.

§ I. RURAL CREDIT IN BOSNIA AND HERZEGOVINA UNDER TURKISH DOMINATION.

In the time of Turkish domination social and economic conditions in Bosnia and Herzegovina were little favourable to the development of credit in general and completely opposed to that of agricultural credit. In the country the ruling system was one of simple natural economy. Each farm sought itself to produce whatever it needed or desired solely from its own soil rendered fruitful by labour. Agricultural labourers made purchases on the market only exceptionally, when they could not supply their needs from the land they cultivated, as when they required colonial products, agricultural implements, cotton stuffs, etc. Such purchases were so limited

that they accounted only for an unimportant circulation of money. Defective means of communication and the presence of the institution of the *Zadruga* contributed much to the long preservation in Bosnia and Herzegovina of natural economy in all its simplicity, after it had elsewhere been replaced by economic systems based on money.

We should add that in these two Slav provinces the development of agricultural credit was impeded by the existence of jurisdictional relations feudal in type, which even today have not entirely disappeared and which mutually connect the feudatory *agas* and the *kmets* agricultural labourers. In Bosnia and Herzegovina property in land is indeed not free even today but is subject to an almost feudal regime. It is burdened with the *kmets* cultivators' rights of usufruct, which are unlimited as to time and conditions, so that if a holding be alienated the cultivator's usufruct persists unmodified by the change of ownership. The mere indication of such a state of affairs is enough to show that it has contributed and still contributes to impede the development of land credit in this country.

Another hindrance to such development was the complete absence of a cadaster and of registers of land, in other words of a basis for mortgage credit.



For that matter the peasant of Bosnia and Herzegovina felt no great need for credit. If he wanted money he got it easily by selling the products of his land to some small dealer in the neighbouring town, from whom afterwards he bought what he required: otherwise he could not have obtained that very limited quantity of the products of agriculture or industry necessary to him. Sometimes indeed he had to have recourse to a loan, but it was always this same small dealer who became his banker.

Such loans had three different forms: a) loans in specie were received; b) manufactured products were bought for credit; c) provisions were bought for credit generally in spring or summer, before the harvest.

The peasant paid a *grosch* a month on the sums thus lent, that is to say 10 per cent. The law established that the rate of interest should not surpass 12 per cent. but this limitation was eluded by lumping the amount of the interest and the capital. Very often also it was agreed that the debt should be repaid not in specie but in kind, in other words in agricultural products of which the quantity was fixed by the deed of loan, which therefore created a contract truly contingent on risks.

In the case of a purchase of provisions or manufactured products for credit, the interest attaching to the correspondent value in specie was considered not as being separate but as swelling the sum which the debtor had to repay. The rate of this interest varied in the proportion in which the purchase price of the goods bought for credit surpassed the usual cash price by from 50 to 100 per cent.

The contract established whether interest should be paid in specie or in kind. In the latter case it was equivalent, when the debt had been incurred by a purchase of provisions, to the difference between the quantity of provisions received on loan, and the quantity paid back when the term of the loan expired. Generally the latter surpassed the former quantity by from 50 to 100 per cent.

The loans in specie might in certain respects be called agricultural loans for the peasants were the only class of the population who could obtain them, they sought them at least partly for reasons inseparable from agriculture, and in greater or less proportion they repaid them with the products of the soil.

The same cannot be said as to credit operations made with certain special funds, such as the funds of churches and mosques, those of the Vakouf properties and of the unions, those guaranteeing the property of wards, etc.: None of the institutions managing these funds granted loans to peasants but only to traders and artisans.

When however the middle of the century had been passed the Turkish government made a first attempt to encourage the development of agricultural credit, and formed the institutions known as *menafi sandouks*. Founded in all the vilayets of Bosnia and Herzegovina they were specially intended to utilize their funds in granting loans which should favour the development of agriculture. Their funds were derived from a tax incumbent on all the peasants and equivalent to a tenth of the value of all the products of the soil, exclusive of the usual tithe.

At first the *menafi sandouks* only granted loans in kind, and in this respect they acted as real institutions of land credit. Later however they substituted loans in specie for loans in kind. Little by little they lost their special character as institutions for the encouragement of agriculture and were transformed into credit institutions. They granted loans generally to government servants or to traders and hardly ever to peasants. Thus the intention of the law was defeated by facts. As regards the history of these special credit institutions, the first *menafi sandouk* was formed in 1863 by Mitad Pacha, vali of the vilayet of the Danube. In 1865 a law was promulgated which decreed that they should be founded in all the vilayets of the Turkish empire.

§ 2 DEVELOPMENT OF AGRICULTURAL CREDIT IN BOSNIA AND HERZEGOVINA AFTER THE AUSTRIAN AND HUNGARIAN OCCUPATION.

The occupation of Bosnia and Herzegovina by Austria and Hungary contributed largely to the improvement in these two provinces of the conditions of agricultural credit, to which it gave a new impulse.

In the first place the population, both floating and fixed, was very perceptibly increased, by the added military element which was very numerous in the early days of the occupation, and by the government servants who also were present in sufficiently important numbers. Especially the latter

formed among the citizens of the country a special class, who in the existing conditions were obliged to buy all they needed in the market with their money. The immediate consequence of this rapid and notable increase in the population was a corresponding increase in the price of all the goods in the market.

Added to this first cause, which had an immediate effect on the economy of the country, was a second — the construction of new lines of communication. These had a propitious influence on the development of trade which they rendered more active, and not only the trade within every inhabited district in the country but also foreign trade. Thanks to these elements of progress the general activity of the market was more and more intensified, the quantity of products on the market increased, and an economy based on cash gradually replaced natural economy in the country. Thus the indispensable and fundamental basis for credit was found. The institution of the land registers and of the cadaster, begun in the first period of occupation and actively continued, finally completed the work undertaken for economic progress, in that it gave the necessary basis to mortgage credit.

Special institutions of agricultural credit were founded, and they largely contributed to the improvement of the country's general economy. We will proceed to speak of them.

§ 3. THE INSTITUTIONS OF RURAL CREDIT.

A. Mortgage Credit.

The institution of land credit in Bosnia and Herzeogvina is due to the initiative of the Austrian and Hungarian government.

In 1883 a first contract between the government and the *Wiener Unionbank* was drawn up for this purpose.

By its terms this bank was bound to instal at Sarajevo a branch which should begin to afford land credit in the country.

The government for its part engaged: 1) to furnish this bank with all information relative to the solvency of debtors; 2) to authorize the post offices of the country to receive the annual payments owed by debtors on behalf of the *Wiener Unionbank*.

But the *Wiener Unionbank* afforded land credit only for three years. In 1886 it ceased to grant mortgage loans, thus obliging the government to enter into a new contract with the fund for the retirement of State employees.

According to the rule of 1887 this fund makes loans of two kinds, as follows:

a) Ordinary mortgage loans, that is loans of sums the use of which is not controlled. Loans of this kind may be made only when the mortgaged land is entered in the land registers.

b) Special mortgage loans granted to the *kmeti* (cultivators) in order that they may free the lands they till from feudal burdens due to the *aga*

(owners) or in order that they may make some improvement on such lands. These loans are granted even without the guarantee of the special registration by the *kmeti* of the lands they till in the land registers. The fund however controls the debtor's use of the money he borrows.

The loans are always for long terms (ten years) and the rate of interest does not surpass 6 per cent. The fund may not grant loans of which the value is more than half the estimated value of the mortgaged lands.

In 1889 however the society managing this fund ceased to act as an institution of mortgage credit. All its credit was thereupon transferred to another and newly formed institution which carried on credit operations under the name of Mortgage Bank of Bosnia and Herzegovina.

The contract between this bank and the government has the following terms :

a) The mortgage bank is authorized to issue mortgage bonds for a total value equal to twenty times the reserve fund which was at first 200,000 crowns (1).

b) The State engages to provide the mortgage bank with the capital necessary for effecting in the interests of the *kmeti* the operations necessary to freeing the lands they till from all feudal burdens owed to the *aga*.

c) The government offices of taxes are bound to furnish the bank with all necessary information as to the solvency of debtors, from whom also they are obliged to recover the annual payments due to the bank.

d) The bank grants mortgage loans for long terms — ten to twenty years — charging interest at the rate of 6 per cent.

The mortgage titles issued by the bank bring in 5 per cent.

In 1895 the mortgage bank of which we have spoken has succeeded by another institution having the same object and called *Landesbank für Bosnien und die Herzegowina*.

The formation of this new institution and the supersession of the earlier one were due to the government's desire to augment circulating capital. With this aim the following measures were undertaken :

1) The new bank was founded with a share capital of 10,000,000 crowns.

2) It was authorized to issue mortgage bonds up to a value thirty times that of its share capital.

3) It enjoys all the privileges previously granted to the mortgage bank.

Side by side with the credit institutions we have named, which emanated from the government directly and therefore enjoyed special privileges and had a more or less official character — since they undertook credit transactions under the State's direct superintendence —, others were formed by the initiative of private persons. Their activity was much limited, yet it was nevertheless to some extent that of institutions of land credit. Among them were the various local banks, the Austrian and Hungarian banks,

(1) 1 crown of gold = $10 \frac{1}{12}$ d at par.

certain special institutions disposing of their own funds, and private creditors.

The statistical data regarding land credit in Bosnia and Herzegovina are few and incomplete. From the official reports published before 1907 we learn only the total amount of the country's mortgage debt, no distinction being made among institutions and persons having such credit. It is only after 1907 that these statistics give us data relative to the different classes of mortgagers. These data show that the total sum of the country's mortgage debts was 141,832, 244 crowns in 1909.

The following table shows the proportion in which the different mortgagees had part in operations of land credit in 1907-1908 and 1909.

Creditors	Number of New Grants of Credit			Amount of New Credit Granted		
	1907	1908	1909	1907	1908	1909
Landesbank	1,787	2,106	1,551	6,191,363	7,796,140	6,988,956
Other local credit institutions	689	1,191	1,443	2,094,318	2,682,752	3,383,092
Austrian and Hungarian credit institutions . . .	221	162	220	495,923	456,991	1,248,507
Local public funds:						
<i>a</i>) <i>Vakouf</i> funds.	461	408	293	80,607	69,719	49,275
<i>b</i>) Church "	134	107	143	53,554	53,235	100,414
<i>c</i>) Departmental funds. . .	412	390	492	84,740	169,897	246,695
<i>d</i>) Various "	61	8	48	423,676	6,373	40,082
Public Austrian and Hungarian funds	30	—	—	133,099	—	—
Wards' funds	173	234	201	115,255	213,273	168,174
Treasury fund.	148	219	388	192,019	726,728	159,316
Private creditors	6,189	6,551	7,554	4,216,127	5,809,185	4,509,352
Total	10,305	11,376	12,333	14,080,681	17,984,293	16,983,863

The following Austrian and Hungarian institutions conduct credit operations in Bosnia and Herzegovina :

- 1) The Credit Bank of Laibach,
- 2) The Serbian Bank of Budapest,
- 3) The Savings Bank of Luboliza,
- 4) The Serbian Bank of Zagreb.
- 5) The Savings Bank of Zagreb.

These are however only the chief among them.

In 1908 a law as to the issue of mortgage titles was promulgated. There are however no statistical data relative to them except for the last five years, and we can therefore make no deductions as to the law's effects.

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Among the different kinds of mortgage loans those having reference to the redemption of lands in the interest of the *kmeti* have a very special importance to the problem of agriculture in Bosnia and Herzegovina.

Until 1910 mortgage credit was granted to *kmeti* by precisely those semi-official institutions which we have already mentioned, especially by the *Wiener Unionbank* until 1886, by the Mortgage Bank from 1886 to 1905 and by the Landesbank from 1895 to 1910.

The terms offered by these various institutions of credit for the purchase of land and its enfranchisement from feudal burdens do not differ from those usual in the case of mortgage credit. Institutions conducting operations of the sort gave credit to borrowers within the limits of half the value of the properties mortgaged for purposes of purchase. The borrower was forced, in order to procure the other half of the sum he needed for the redemption of the land he tilled, to have recourse to capitalist usurers or to sell his live stock.

As regards the term of operations of this sort it may be said generally to have been long — from fifteen to twenty years. The rate of interest was 6 per cent. and could be raised to 8 per cent. only in the case of delay. If the sums necessary for the redemption of a holding were provided by the Treasury the rate of interest varied from 3 to 6 per cent.

In the period between 1879 and 1910 the official institutions we have named lent the total value of 23,129,975 crowns for the redemption of lands.

The official report for 1906 on the administration of Kalaj, governor of Bosnia and Herzegovina, and the conclusions to be drawn from it deserve special notice.

Kalaj's policy is criticized. The first governor of the two provinces as occupied by Austria and Hungary is accused of having neglected the agrarian question and wishes are expressed that his successor may give it all its rightful importance.

Count Burian, who was Kalaj's immediate successor, showed that he had well understood this importance. His whole policy aimed at eliminating the difficulties in the way of solving the agrarian question in Bosnia and Herzegovina.

A first attempt to solve that part of this difficult problem which related to the redemption of lands in the interest of the *kmeti* was made by Burian, who entered into negotiations with the Commercial Bank of Budapest. But this attempt did not succeed, and the government undertook the direct granting of mortgage credit for the purchase of the lands.

With this object and on the basis of the provisions of the law of 1911 a new administrative department was attached to the government of Bosnia

and Herzegovina. It was called the department for the purchase of lands and was given competence in all matters touching on this question, in particular competence to afford mortgage credit in order to solve the problem of the *kmeti*.

The initial capital of 500,000 crowns was provided by the State, on condition that capital should in the future be procured by the issue of mortgage titles, guaranteed by the State, and bearing interest at the rate of $4\frac{1}{2}$ per cent.

The administrative department we have mentioned, which exists for the redemption of lands, grants loans up to the total value of the mortgaged land. The loans are for long terms, from thirty to fifty years, and bear interest at the rate of $4\frac{1}{2}$ per cent. The sum which is due to the *aga* as a consequence of the redemption, because he has renounced his rights in the land, is paid to him in specie unless he himself prefer whole or partial payment in mortgage titles.

The department for the redemption of lands also provides, in the form of loans, the sums necessary to the conversion of debts incurred before a given holding is redeemed.

This institution granted between the beginning of 1912 and the end of October 1913 11,258 loans having the total value of 20,250,000 crowns, which sum was distributed as follows : two thirds to the redemption of lands burdened when the loan was incurred with feudal servitudes, and one third to the conversion of debts previously contracted for the purpose of redemption.

B. Personal Agricultural Credit.

The institution of personal agricultural credit is due, like that of mortgage credit, to government initiative and government measures. Credit of this kind is directly afforded by the *Bezirksunterstützungsfonds*, that is to say the departmental credit banks. The first of them was founded in the department of Gazco in 1886. They have since been multiplied throughout the country to such an extent that today they number no less than fifty, namely one for each department. They are truly State credit institutions, and are managed by the administrative authorities of the departments, helped in each department by a sort of assembly to which peasants belong. Until 1905 these assemblies had only a consultative capacity and therefore did no more than supply the departmental administrative authority with useful information as to the solvency and reliability of those applying for personal loans and the purpose for which such loans were intended. The right to resolve as to the acceptance or the rejection of an application for a loan was exclusively reserved to the departmental administrative authority. Since 1905 however the power to vote on resolutions of this kind has been extended to the peasants' assembly, for a reason which must be explained. In this year the law established that all the taxpayers of a department were liable for the debts to the Landesbank which the departmental bank might incur. The grant of a vote to the peasants con-

stituting the assembly of this fund should be looked upon as a direct consequence of the personal liability thus imposed by the law on all the peasants of the assembly.

As regards their own capital the departmental banks have much in common with the other existing institutions of the same kind, of which we have already spoken and which are called *Menafi Sandouks*.

The same course was taken in the case of the departmental banks as in that of the *Menafi Sandouks*. The system was adopted of causing all the peasant taxpayers in a department in which there was a bank to take part in contributing to its capital. They were obliged to pay a tenth of the value of the lands they tilled in addition to the ordinary tithe.

The State also takes part in the endowment of the departmental banks, furnishing each of them with a capital of from 10,000 to 20,000 crowns. To augment this endowment the capital of the abolished *menafi sandouk* in each department has been added to it, but this contribution is of little importance.

The capital which each departmental bank owns is of three kinds : 1) capital in shares, 2) reserve fund, 3) fund destined for objects of social utility.

The by-laws of each bank fix the amount of its capital in shares and its reserve fund. The contributions of the peasants are first accumulated to form the capital in shares. The net profits of each year are on the other hand paid into the reserve. When the sums previously fixed, as has been said, as the respective amounts of the capital in shares and the reserve fund have been accumulated, two thirds of the net profits go to augment the capital in shares and the other third is paid into the fund destined for objects of social utility.

Until 1886 the departmental banks disposed only of their own capital formed in the manner described. Since that date they have received, as has already been said, the power to borrow from the Landesbank an amount no greater than the capital with which a borrowing bank is endowed. Subsequently, that is after 1905, this maximum limit was raised to include a sum twenty times the amount of the capital of the bank desiring to borrow. This power to borrow is however subject to the condition that liability for the debt incurred be assumed collectively by all the taxpayers of the department in question. This explains still further what we have already said as to the reason for granting a deliberative vote to the peasants belonging to the assembly of a departmental bank. On loans of the kind in question the departmental banks pay interest to the Landesbank at a rate 1 per cent. in excess of that officially exacted by the Austrian and Hungarian Bank.

The law of 1909, which gave to the departmental banks the right to receive savings deposits and employ them for the objects for which these banks were formed, gave an impulse of increasing force to their development. According to the general by-laws which regulate their activity the departmental banks grant personal loans which may be divided into two classes :

The first class (group A) comprises loans for maintenance, that is loans made to peasants in bad years to enable them to live until the following harvest. These may not surpass 200 crowns or be for a longer term than one year, and the reserve fund serves to provide them. The interest charged on them was at the rate of 4 per cent. until 1910 when it was raised to 5 per cent.

No guarantee is needed for personal loans of less than forty crowns. Above this sum the banks require the signature of a surety.

The second class (group B) comprises productive loans, such as may be granted to peasants for the purchase of live stock, agricultural implements, etc. Until 1905 the maximum limit of the sums which the departmental banks might lend to an isolated individual were not fixed by a bank's by-laws but by a government decree, published for this purpose every year. However in the case of a really exceptional need it was customary for the government to give a special authority to the banks.

The law of 1905 fixed the limits of personal credit. It was established that ordinarily it should not surpass 600 crowns and that a special authority from the government was needed for larger sums. Loans of this kind were for short terms -- one year -- and the interest attaching to them was at the rate of 6 per cent.

Departmental banks having a reserve fund which has reached the sum anticipated by the by-laws, and having formed a fund for objects of social utility in the manner described, are authorized to grant out of the latter fund all loans which tend to the realization of these objects. They may also make grants to religious enterprises.

Until 1908 loans were granted in specie but subsequently in kind. The departmental banks are also in the habit of buying agricultural implements, seeds and goods of various kinds, in order to sell them to the peasants for credit.

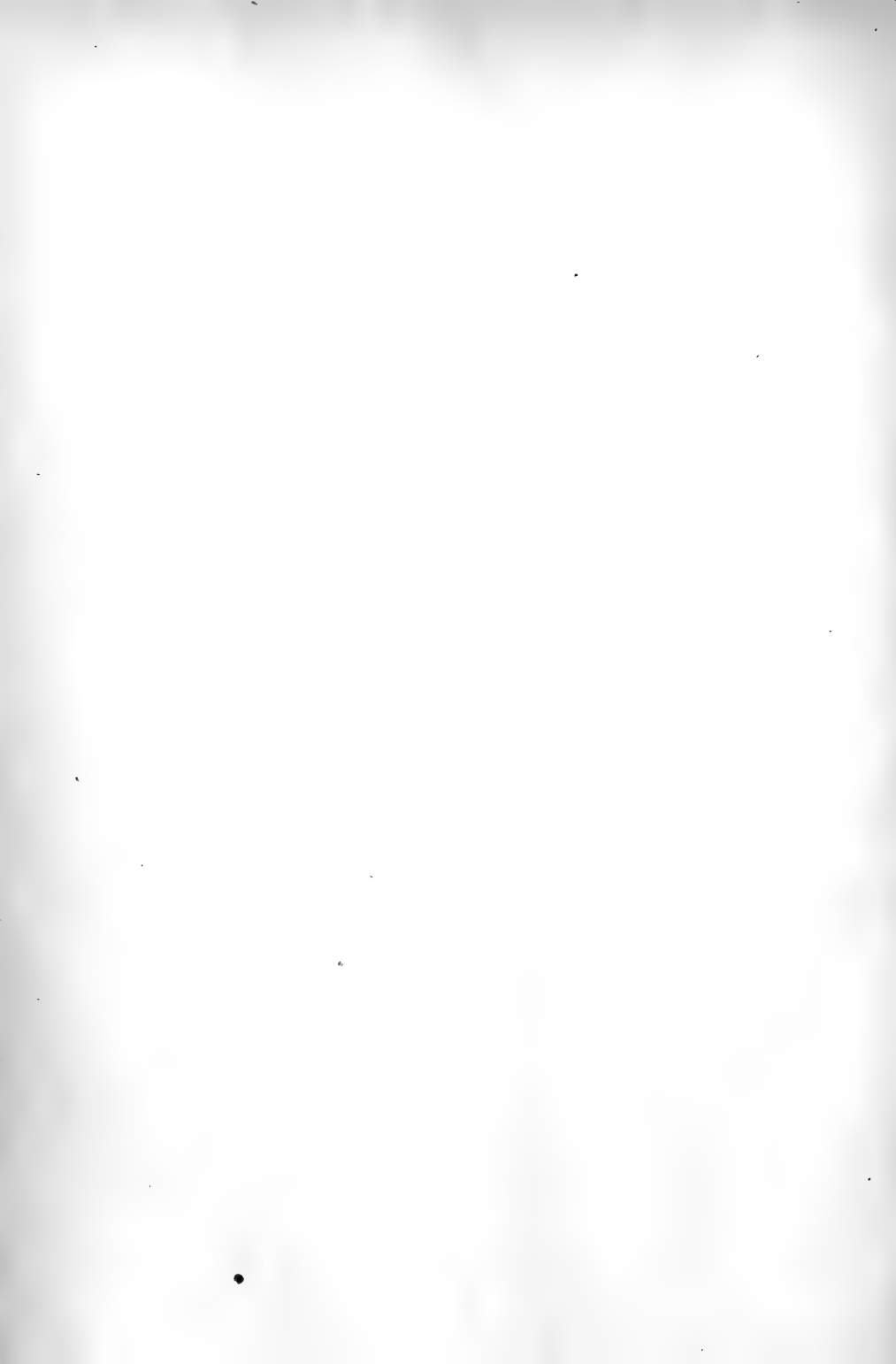
The official statistics for the years from 1905 to 1910 give us the following table relative to the working of the departmental banks :

	1905	1906	1907	1908	1909	1910
Credit granted.	3,162,843	3,079,242	4,930,462	6,705,858	6,411,433	5,885,450
Debts repaid. . .	2,916,838	2,772,205	2,987,990	4,077,831	5,452,778	5,402,132
Debts not repaid.	1,175,645	1,464,221	3,325,479	5,935,985	6,840,457	7,323,774
Capital in shares.	3,432,086	3,539,329	3,713,668	3,851,175	3,881,178	4,069,707
Credit granted	3,707	1,373	—	13,977	2,196	120
Debts repaid. . .	13,468	9,827	5,724	4,439	3,387	3,683
Debts not repaid.	43,475	34,995	29,290	38,822	38,475	34,912
Reserve fund. . .	251,156	244,472	253,848	258,575	259,146	261,920
Fund for objects of social utility.	—	—	—	41,200	142,315	202,012

In Bosnia and Herzegovina social and economic relations did not favour the development of rural co-operative societies in the time of the Austrian occupation. The people of the two provinces are naturally conservative and opposed to any innovation. They are moreover too poor to be

able to accumulate the savings necessary to the formation of popular banks and the constitution of bases for the operations of these. The man who was first called upon to govern Bosnia and Herzegovina had also a conservative spirit. Kalaj's economic policy was always inspired by the idea that all innovations were to be avoided because they might run counter to the ancient customs of this primitive people and provoke discontent and disorder. We must add that religious hatred had a certain influence in placing obstacles in the way of the spirit of association in a country in which the adherents of one faith always felt themselves too different from those of another to be able to unite with them for any object whatsoever. The departmental banks eventually contributed to no negligible extent to bringing home to the peasants of Bosnia and Herzegovina the need for co-operative credit societies. The first co-operative society of this kind was founded in 1909, after which year about a hundred of them were formed, most of them Raffeisen in type although at first it was the Schulze-Delitsch type which predominated and which the government favoured. Of late years however the Schulze-Delitsch has gradually given place to the Raiffeisen model, to which four fifths of the co-operative societies in Bosnia and Herzegovina now conform, one fifth being of the Schulze-Delitsch type.

There are no statistics relative to the activity of these co-operative societies, but their operations in credit are known to be unimportant. Statistics as to the personal credit afforded by credit institutions or private individuals are also lacking. In general credit institutions do not willingly make loans to peasants who are not allowed to give guarantees in the shape of bills. On the other hand numerous private persons, most of them usurers, are in the habit of exploiting this state of affairs by granting loans to peasants on onerous terms. These loans are said to be in the aggregate numerous and important in Bosnia and Herzegovina. The continual increase of the peasants' total debt to private individuals was largely due until 1910 to the defective solution of the problem of the *kmeti*. We have already said that the existing institutions of credit in Bosnia and Herzegovina do not lend to the *kmeti* more than half the value of the land these propose to redeem. The *kmeti* were therefore obliged to have recourse to the credit afforded by usurers in order to effect redemption. Therefore the redemption of lands, which was intended by the law to improve the condition of the cultivators of Bosnia and Herzegovina, served on the contrary, for the reasons given, to aggravate the economic situation of many of them.



Part IV: Agricultural Economy in General

ERYTHREA.

LAND TENURE AND COLONIZATION.

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§ I. ADMINISTRATIVE ORGANIZATION OF THE COLONY OF ERYTHREA.

A). *General Remarks.*

The name of Colony of Erythrea was given, by a royal decree of 1 January 1890, N° 6592, to the Italian possessions on the western coast of the Red Sea. The political boundaries of Erythrea, as determined by the treaties in force, are as follows: on the east — the sea from Ras Caser (18°2' northern latitude) to Ras Dunierra (12°30' northern latitude) on the straits of Bab-el-Mandeb; on the north, north-west and west — that is to say towards Egyptian Sudan — the boundaries established by the Italo-British protocol of 15 April 1891, the ensuing agreements of 7 December 1898 and 1 June 1899, and the Italo-Britannico-Ethiopian convention of 15 May 1902; on the south, towards Ethiopia, a line starting on the west at the confluence of the Khar-um-hager and the Setit, following this river until it is joined by the Maiteb, and following the latter river — so that Mount Ala Tacura and the whole tribe of the Cunama are included in Erythrea — to the Marceb where it joins the Belesa and then to its junction with the Muna.

On the side of the French possessions of Obotz the boundary was determined by the Franco-Italian protocols of 24 January 1900 and 10 July 1901. It starts at the extreme point of Ras Dumeira, follows the dividing line of the waters of the promontory bearing that name for one and a half kilometres (1), then goes straight to the point on the Ulima called Bisi-divo, from which point it is merged in the Ulima and so reaches the place called Daddato.

According to the last " *Annuario statistico italiano* " Erythrea has an area of 119,000 square kilometres and a population of 300,000 (2). According to the results of the census of 1905 the population of Erythrea was then 274,944, to whom must be added a floating population of 30,000, emanating from beyond the frontiers and immigrating for purposes of work, the European population and the population assimilated to it. The total population of the country may therefore be placed at 300,000 (3).

B.) *Administrative Organization.*

The organization of Erythrea is determined by the law of 24 May 1903, N° 205. In virtue of the organic administrative organization approved by the royal decree of 22 September 1905, N° 507 (4), the colony is ruled by a civil governor, nominated by royal decree on the proposal of the Minister of the Colonies advised by the Council of Ministers, this arrangement having been in force since the creation of the Ministry of the Colonies (Royal Decree of 20 November 1912, N° 1205).

The governor depends immediately and exclusively on the Minister of the Colonies. He directs the colony's policy, governs its people and administers its finance. He directs and is responsible for the colony's civil and military administration, and in the capacity of representative in the colony of the central government he has all the powers

(1) 1 kilometre = 1093.633 yards.

(2) The different authorities do not agree on these points, as is easy to imagine since countries imperfectly investigated are in question. ROSSETTI ascribes to Erythrea in his *Carta dimostrativa della Colonia Eritrea* (N° 3) Rome 1907, an area of 30,000 square kilometres and a population of 275,000. A little earlier MULAZZANI in his *Geografia della colonia Eritrea* (Florence, Bemporad) gives it 130,000 square kilometres and 330,000 inhabitants. BARTOLOMMEI-GIOLINI in *L'Eritrea Economica* (Istituto Geografico de Agostini, Novara 1913) gives it 118,609 square kilometres and 335,000 inhabitants. MELLI in *L'Eritrea delle sue origini a tutto il 1901* (Milan. Hoepli) gives it 247,000 square kilometres and 327,000 inhabitants, basing his statements on the census of 1899, etc.

(3) Cf. A. M. TANCREDI: *Notizie e studi sulla colonia Eritrea* (Roma, Casa Editrice Italiana 1913). See also in this connection MARMELLI and DAINELLI, *Atlante d'Africa* by GHISLERI. The results of the *Censimento della popolazione indigena della colonia Eritrea Anno 1905* are reported in the *Allegati alla Relazione sulla colonia Eritrea del R. Commissario civile F. Martini per gli esercizi 1902-1907* (Rome 1913) *Allegato* No. 11, pp. 17-95. The results of the *Censimento delle popolazioni europee ed assimilata della colonia* are in the same volume - *Allegati* nos. 12 and 13, pp. 103-133.

(4) See *Bollettino Ufficiale della Colonia Eritrea*, 21 October 1905, N° 42.

which the king's ministers can delegate. The seat of the colony's government is at Asmara. The governor acts through a government office, divided into directing departments the number and competence of which he establishes in accordance with needs. An Office of Accounts and a secretariat also depend on him; the former being especially charged to control the management of finances and report on it, while the latter has the custody of the archives and is concerned with general formularies and with the despatch of business relative to the colonial staff. The stewardship of the colony depends on the governor's secretariat.

In his examination of the most important administrative questions the governor is helped by a Council of Administration which has however only a consultative voice.

This council, over which the governor presides, is composed of the Director of Civil Affairs, the Director of Finances and Accounts, the President of the Court of Appeal and the commander of the corps of colonial troops. In special cases other officials of the colony can be summoned to its meetings.

To administer the colony's civil affairs a body of colonial officials, chosen among persons having the necessary physical and intellectual aptitudes, exists.

The colony's territory is divided into districts and governed by commissioners or residents whose jurisdiction and competence are defined by a governor's decree. At present there are eight commissioner's districts — namely Hamasien, Acchelé-Guzai, Seraë, Barca, Cheren, Massana, Assab and Gasc-Sétit. There are also the resident's districts of Sahel, Mareb, Scimenzana and Dancalia.

Civil and penal justice is administered according to the provisions of the royal decree of 9 February 1902, No 51, on the colony's judiciary organization, as modified by the royal decree of 27 March in the same year, No 126.

By the terms of the ordinance of 22 September 1905, already mentioned, the colony's defence is entrusted to a royal corps of colonial troops and to the ships stationed in the Red Sea.

§ 2. AGRICULTURAL CONDITIONS IN ERYTHREA.

A. — *Soil and Products.*

The soil of Erythrea is fertile, and — unless there are anomalies due to atmospheric phenomena or devastation by locusts — the natives obtain abundant and varied harvests by superficial and extensive husbandry. The climate, the hydrology and the soil of Erythrea combine to create conditions adapted to very diverse forms of agriculture, the most numerous and productive of which could not be practised in Italy (1).

(1) See in this connection *Allegato C. of the Relazione sulla Colonia Eritrea* (1910 and 1911) by F. MARTINI, presented by the minister Prinetti to the Chamber of Deputies during the session of 13 December 1912. (*L'agricoltura nell'Eritrea*. Report of the extraordinary civil royal Commissioner by Dr. GINO BARTLOMMET-GIOLI).

To a brief examination of native agriculture, the distinction between agricultural zones — which is customary among the local population and accepted by most botanists and explorers in Ethiopian regions — is necessary. The natives are used to distinguish between three great zones, the different characteristics and aspects of which are marked by their altitude and consequently by the distribution of their flora. They are the *Quolla* or *Colla* (Hot Land), the *Uina Degà* (Mountain of the Vine) and the *Degà* (Mountain). The first rises from the sea-level to an altitude of about 1800 metres (1) and has an essentially tropical character. The chief crops cultivated in it are *dura*, *dagussa*, maize, *pania*, *sesamum* and cotton.

The second zone is between the altitudes of 1800 and 2400 metres. Its climate is temperate and suited to the cultivation of the cereals of Europe. The crops special to this zone are corn crops, being a mixture of numerous kinds in which predominate hard corns, barley and oats (cereals which cannot be cultivated below an altitude of 2000 metres), taff, linen and some vegetables (beans, chick peas etc.). *Dura*, *dagussa*, maize, haricot beans and lentils are also cultivated in these two zones.

The third zone lies beyond the altitude of 2400 metres and is little represented in the colony. Its agricultural aptitudes do not differ much from those found in *Uina Dega* but it is better adapted to the exclusive culture of corn and barley.

If however the climatic-agricultural conditions of Erythrea be considered, from the point of view of scientific agriculture, on which the colony's future depends, it must be divided into six zones which we will call climatic-agricultural (2).

1) *Coastal and torrid zone, having rare and torrential rain.* — The land adapted to agriculture is very permeable and sandy. The climate is very dry and the vegetation very rare. There is a tacit convention to call this region desert, but in reality it has the characteristics of a desert only where the land is moving; the stable land has rather the characteristics of the steppe, its vegetation consisting of thorny and gramineous plants. No European practises agriculture and natives do so to a very limited extent, for ordinary agriculture is subject to too much uncertainty. It is however a mistake to think that the coastal region of the colony could not lend itself to agriculture. It has on the contrary conditions which allow of the formation of numerous oases, by means of the cultivation of date-trees — which might in itself be very remunerative — and the planting in their shade of cereals and plants having an industrial value, such as *sorglios*, *dura*, maize, henna and the plants suited to garden cultivation, especially *babinia* — which is the authentic jute — and *melokia*, a valued succedaneum of jute.

2) *Zone of winter rains.* — Native agriculture is here habitually fairly

(1) 1 metre = 1.094 yards.

(2) This division follows on researches undertaken by Professor ISAIA BALDRATI, director of the experimental agricultural bureau of the colony of Erythrea, the results of which have appeared in excellent publications. Among these is the report on this subject read to the Italian Colonial Congress of Asmara in 1905.

extensive and some examples of European agriculture are not lacking. The natives confine themselves to growing maize, dura, sorgho sugar, and *neuk* (1) in small quantities. The Europeans on the other hand have grown sesamum and are growing tobacco with excellent results. There is one example of native vegetable gardening. Successful experiments were made with cotton in 1902, and experience seems to show that the American varieties are to be preferred. In 1904 an attempt was made to grow Egyptian cotton but with negative results. It may be affirmed that precocious cottons of the *Upplan* type or rustic cottons of the Texas-Mexico, Abyssinia and India types can be profitably grown (2). The experience of the agricultural bureau has shown the possibility of cultivating with profit the arachide, the *agave sisalana*, the Alexandrine clover, several gramineous forage plants, taff, haricot beans of various kinds and *ambrevade*. On the whole this region may be considered to be peculiarly adapted to agriculture but its resources are still latent.

3) *Zone having two rainy seasons.* — This zone is well adapted to the growth of the products which commerce calls colonial products. The country is much varied and still largely wooded and its altitude varies from 400 to 2000 metres. Most of its area is uncultivated and used as pasture for their flocks by nomad shepherds. Outside the ordinary pastures the natives grow cotton. This plant grows luxuriantly but is sometimes damaged by rains while it is maturing. Almost all the valleys of this region are constantly watered by the springs or by the water which circulates in the beds of torrents. The farm of the Colonial Society is within this zone. Almond-trees, fig-trees and vines flourish in it. It includes a coffee plantation. Indigo grows wild abundantly and in quite important quantities. The experimental field of Filfil was established in this zone. As regards coffee-growing, it is well to note that it is possible here, and that on the eastern slopes, situated at an altitude of from 900 to 1700 metres, it promises excellent results. It is indispensable that a coffee-plantation should be shaded by non-deciduous trees. If irrigation be undertaken within the first two or three years success is certain, and even without irrigation the climate makes good results probable. The cinnamon tree, the sago tree and the carludovica for Panama hats also promise well, planted in excellent soil and well shaded, even if there be no irrigation. All the common crops already noticed as suited to the zone of winter rains are also certain to succeed, and dry rice, of the Manchuria and Mayotte varieties, should be added to them. India-rubber plants also promise well, especially the *Ficus elastica* and *Cresptostegia grandiflora*. There are further groves of wild orange and lemon trees and the yam grows wild. Several grantees have already devoted themselves to coffee-growing.

(1) *Neuk* is grown beside corn and barley and gives an oil of excellent quality which is even fit for cooking. In Europe it is known as *niger*.

(2) In this connection see also *Allegato D.* in MARTINI'S report: *Della coltura del cotone nell'Eritrea* by Aurelio Paoletti, *Relazioni speciali per i singoli prodotti coloniali* in *Atti del II. Congresso degli Italiani all'Estero*, Vol. I, 2nd part; and reports on this subject in *Atti del Congresso coloniale italiano in Asmara*, Vol. I. etc.

4) *Temperate zone having summer rains.* — This zone comprises the greatest part of the land of Asmara, Saganeiti and Adi Ugri, part of the land of Cheren and a considerable part of the territory of the Habab. It is the region most densely populated, both by natives and by Europeans, and consequently most widely cultivated. Fundamentally the crops are those of Europe. Some crops are already habitually and extensively cultivated — as *taff* wheat, barley, *neuk* and dry vegetables. Agriculture on the high Erythrean plateau neglects modern rules almost entirely: work is done without method; there is no manuring or succession of crops. It was thought that it would be very difficult to establish a succession for the crops of the high plateau. The difficulty lay in the choice of a crop which would renew the soil and in the lack of vegetable fodder, but to-day it has been almost completely overcome. The most precocious varieties of the *dura*, potatoes, beans for sowing, some vegetable fodders, clover of Alexandria and lucerne grass can be used as being capable of renewing the soil. There is production not only for local consumption, but also for export in the case of linen, grain, *neuk*, colza, spices, potatoes and meal.

5) *Hot zone having summer rains.* — The most important and characteristic territory in this zone is that of Cheren. The irrigated cultivation of tropical fruits and vegetable-garden plants is here of considerable importance, thanks to the efforts made by Europeans and Sudanese. Ordinary native agriculture produces *dura*, bultuk, haricot beans, *neuk* and cotton. The lands of this zone might bear large crops for industrial purposes. In well formed soil the short-fibred American cottons give good results, without irrigation, even on hilly land. The arachis, the castor-oil plant, indigo and *agave sisalina* justify the best hopes entertained for them. *Manihot glazovii* or Ceara tobacco promises well and gives an excellent product.

6) *Zone having a torrid climate.* — There is little information as to the climate of this region. It seems however that usually it enjoys more rain than the high plateau, and moreover — since the temperature is always very high immediately after rain, its ordinary agriculture seems to be somewhat problematic. The population is little addicted to agriculture, and such as they do practise is faulty. Until a few years ago no ordinary agriculture was undertaken by Europeans. It is however in this region that the first attempts at growing cotton gave excellent results in 1902, and that moreover the Milanese firms obtained their vast grants for cotton-growing. It is however almost certain that the cultivation of long-fibred Egyptian cotton cannot give sure guarantees, if it be not helped by irrigation, a matter which presents no great difficulties since this region has rivers (Gasc, Sétit, Barca and their tributaries) having running water or layers of water above their beds and subject to floods. The future of this region depends therefore almost exclusively on the construction of works of irrigation which will allow its waters to serve agriculture (1). We will end this report with

(1) In this connection it is important also to notice the *Carte speciali dei terreni coltivati e dei terreni coltivabili ma non coltivati* (Special maps of cultivated lands and cultivable but uncultivated lands) of several commissions of Erythrea, published in MARTINI's report in 1913, Vol. IV 2nd part, established by M. CHECCHI, G. GIARDI and A. MORI (Sheets 6 bis to 11 bis).

the remark that in all Erythrea the Indian fig-tree grows well in the regions having an altitude of from 900 to 1000 metres or more. This is truly providential for the natives, for they can feed on the fruit for several months of the year and it exists in such quantities that some years ago its utilization for the manufacture of alcohol was even contemplated. The importance of the trees for fodder is no less: they feed the live stock as well as the natives. By the means of this tree a solution of the problem of reforesting districts of Erythrea might be found or at least sought. A policy of forestry might be placed on the basis of a well understood association of woodland and pastureland and a scientific economy with regard to the mountain territories.

B. — *Live Stock Farming.*

Of the different varieties of animals kept in Erythrea animals intended for meat, particularly cattle, have most interest, especially in view of their importation into Italy. Erythrea is rich in cattle; but unfortunately breeding is often absolutely primitive, for methods of selection are almost entirely ignored and are not applied. None of the possible improvements of the primitive systems are known and they have never been adopted. It should be added that no care is taken of the pastures, that there are no artificial prairies, and that it is the custom to harvest prairie grass for hay-making. Other and graver drawbacks exist with these. Until recently and for many years, from 1887 to 1903, the live stock of Erythrea was continually threatened and attacked by cattle disease. During this long period the matter was not even investigated; nothing was done against the scourge, except that shortly before 1903 there was an attempt at serum vaccination which however yielded neither theoretical nor practical results. It was indeed made empirically rather than scientifically. In order to find a remedy for the loss to which cattle farming was subject from epizooty, which destroyed the live stock of whole regions when it raged, S. E. Martini, then governor, took in 1903 a wise step. He charged a special mission to look into this most delicate question. The mission identified and studied the plague, established the distinction between it and the protozoic diseases with which it was confused, and laid down what were practical methods of fighting and preventing it.

The *Istituto siero-vaccinogeno* of Asmara was then founded for the preparation of the necessary sera and vaccines; men began to rely on really scientific criteria in vaccinating the beasts; and a serious, energetic and victorious campaign against the terrible disease was undertaken. The beneficent influence — economic, sanitary and political — of vaccination was disseminated everywhere. It may be affirmed that today the plague has

(1) Cf. in this connection A. OMODEO, V. PEGLION, G. VALENTI, *La Colonia Eritrea*. Rome, Bertero, 1913. volume I, section II, No. V. of the first part (Report of Professor Peglion), and in general all Professor PEGLION's report which forms the second section of this volume (pp. 135-215).

completely disappeared from Erythrea where almost all animals of the cattle tribe are rendered immune against it.

A corollary to the tenacious struggle was the considerable increase in the number of the cattle. According to the last census, made in 1905, there were then already 300,000 head of fully grown cattle.

The results of the census of the cattle of the colony of Erythrea are found in Martini's report of 1913 (Vol II. *Allegati* No. 67, pp. 987-1000) (1),

The census of 1905 supplied the following data :

	Camels	Horses	Cattle	Sheep
Census of 1898 . .	30,669	26,205	177,969	770,129
" " 1905 . .	46,933	29,789	295,717	736,132
Difference	+ 16,264	+ 3,584	117,748	-- 33 ,997

If however it be remembered that on the occasion of this last census a good third of the animals were not declared by the natives — always averse from such declarations because they fear taxes and also perhaps because they are jealously reserved as regards their own property ; that these people consume no meat whatsoever ; and that in the five years after the census and until today the mortality from the plague, which once amounted to wholesale massacre rather than decimation, has ceased, because no more cases have occurred where serum vaccination is practised : if all these things be remembered it is obvious that the figure 300,000 must in reality much more than have doubled. The number of the heads of cattle must be at least 700,000, as was calculated in Erythrea in 1911. Such number is equivalent to one eighth of the total number of cattle in all Italy, found to be 6,198,861 at the last census. The production of sheep and goats is no less large and increases continually. These animals numbered in 1905 nearly a million and are now reasonably computed at more than two millions.

These data taken from the census of 1905 and from other and more recent information and researches — supplied by the district commissioners, the direction of civil affairs and the direction of the institute for the production of serum of Asmara — show that the number of cattle in Erythrea in relation to the population is proportionately far larger than in Italy. In Italy it is stated that there is one head of cattle for every six or seven inhabitants ; whereas in Erythrea, where before the war the population was about 400,000, there were then about two heads of cattle for each inhabitant.

If the number of cattle be compared to the area of Erythrea — 115,000 square kilometres — there are found to be six heads to every square kilometre, while in Italy there are 21.62 to every square kilometre.

(1) See also sheets XX and XXI of vol. IV. of the same report (*Carte speciali*) where is reported the distribution of wealth in live stock in the different districts of the colony (*Distribuzione della ricchezza in bestiame nelle varie regioni della colonia* and *Distribuzione del bestiame nelle varie regioni della colonia*).

That this figure should in Erythrea be six is the more remarkable because of the vast almost desert expanses of territory included in the total area, such as the deserts of Dancalia and the lands between the Gasc and the Setit.

The export of live oxen from Erythrea to Italy, of preserved meat in cases and of frozen meat or meat preserved by refrigeration presents a problem not yet solved, which will certainly be studied and rightly determined before long. The usefulness of such an enterprise is evident, in view of the prices in force in Erythrea, where a live ox weighing three quintals (1) does not cost more on the average, than 17 Maria Theresa thalers, that is about 32s.

§ 3. THE LAND REGIME.

In order well to understand the bearing of the recently adopted land policy, it is necessary to show the essential lines on which Ethiopian property was organized among the populations of the high plateau at the time of the Italian occupation.

In Abyssinia there is private property in land. The lands called *resti* are the freehold of the families of agriculturists. The etymology of the word *resti* implies occupation: it is derived from *rasseté* which means "to occupy" and marks the title by which the land was acquired.

The *resti* is not an individual property but one which belongs to a race, to a family: it is therefore a collective property.

Its collective organization does not however cut it off from being private and absolute. It can be transmitted by inheritance and alienated by sale and purchase, by exchange or by gift. Property in it is collective owing to the constitution of families which are today still patriarchal, and because of the method in which agriculture and shepherding are practised on it. Beasts are bred and raised in the open air and pastures and fallow-lands therefore remain common; and since cereals are cultivated in turn over large zones, fields are appropriated only temporarily. Hence the custom of distributing them by lot. Thus conditions are like those which Tacitus described as existing among the Germans (2) and which still subsist in the Apennines. The collective organization of private property, as determined by custom and imposed by economic needs, is not incapable of reformation but can be modified at will by those having rights in it. If therefore the transition were to be made tomorrow from the system of agriculture now in force to intensive culture, there would be nothing to prevent the individualization of property. The form of property can be modified as has happened before, but the element which ought to subsist is that of the cultivator's free ownership.

(1) 1 quintal = 220 lbs.

(2) *Arva per annos mutant et superest ager.*

Besides *resti* there is another form of ownership, *gulti*. This tenure is feudal by origin and nature! the sovereign grants seigneurial investiture with a certain holding to a person he favours. The *gulti* is therefore less representative of a right than of an office, a public charge, a delegation of the sovereign prerogative. The *gultegna* who has been invested with the *gulti* receive the tribute and pays it in whole or part to the sovereign; he assembles and commands the armed men in war, administers justice in the first instance and declares to the sovereign the causes as to which there may have been an appeal. Therefore while *resti* is economic occupation and the *restagna* an individual who occupies for his own profit, *gulti* is political occupation and the *gultegna* holds a public office. The *gultegna* retains for himself a part of the tribute (a tenth) and causes part of the lands of the *gulti* to be cultivated on his behalf as the appanage or salary of his post, a fact which in no way changes the nature of his occupation.

The sovereign's economic right and that which he delegates to the feudatories is chiefly the right to receive the tribute. The sovereign — the government — cannot reach the *gulti* except in fully determined cases. An absolute respect is thus shown to private property. These cases are those of 1) the total extinction of the *gultegna's* line; 2) his confiscation for rebellion or felony; 3) his failure to pay tribute; 4) his abandonment or voluntary renunciation by permanent absence of his land.

Finally we must recall that this organization of property, of which we have described the chief features, does not affect the vast regions inhabited by Mussulman and Pagan tribes, such as the districts of the Gasc, the Setit, the Barca, the Senhit, the Sahel, the Assaorta and the Dankalia, in which private property does not exist and the pastoral tribes have a customary right to pasture their animals freely on all of the territory not intended to be arable. In these districts property in the soil may really be considered to be vested in the State, so true is it that the peasants occupying lands, in order to grow cereals, have to pay a due or domainial tax which has no resemblance to a tribute.

Without going back to the political and historical vicissitudes, which characterized the first period of the Italian occupation of Erythrea and reached their last stage during the war against Abyssinia in 1895-1896, it is well to recall, as an explanation of and a commentary on the decree of 31 January 1909 organizing land in Erythrea, that in the period from 11 May 1893 to 12 July 1895 a series of decrees, promulgated in the colony, declared vast tracts of land to be domainial and reserved.

In view of the organization of property in Erythrea, as this has been briefly described, it is easy to understand how profoundly these decrees, which authorized the creation of a domain, disturbed the minds of the population of the high plateau. They contained an entirely new conception of the regulation of property, according to which the State had the right to claim lands for itself not only for objects of utility — a case which might within limits have been allowed by Abyssinian law — but also in order to appropriate these lands to colonization by white men, by the invading people. It was natural that violent confiscation, although in fact it affected only restricted

zones, should suffice to persuade the natives that they saw the beginning of a system which little by little would cause them to be entirely despoiled of their property in land.

On the other hand in the districts inhabited by Mussulman and Pagan tribes relatively vast territories could be subtracted from the domain held in common usufruct, for reasons already given, without seriously disturbing the rights or interests of the native tribes, who moreover populated these districts somewhat sparsely. The mistake in the decrees which formed a State domain was that they almost gave sanctity to the principle that a declaration of authority is necessary in order to establish the State's superior right to lands; whereas in Abyssinian law the sovereign or any tenant of the sovereign, that is the *gultegna*, can dispose of any lands not *resti*. Thus these decrees limited instead of extending the State's superior power, giving rise to the belief that it concerned only lands which had been declared part of the domain.

Thus this state of affairs caused in the colony much discontent which had to be eliminated if the population were to be pacified. Two measures might lead to this. A decree repeating those promulgated to form a State domain might be issued, the rights acquired by grantees being safeguarded, a serious step which might injure the government's prestige. Alternatively they might be modified so that they would become ineffective where they were held to be counter to the rights of the population and dangerous to public authority.

The modification to which the colony's government had recourse was as follows. Article 14 of the law of 24 May 1903 had provided that Acts prior to this law in date should not be enforced if they had not been included in the collection of Acts of Public Authority to be issued within two years, a term afterwards prorogued so that this collection was approved only by the royal decree of 30 December 1909. In this collection thirty decrees creating the State domain were not included, because they were not thought consistent with the land organization approved by the royal decree of 31 January 1909 or because they ran manifestly counter to the rights of the population. The decrees creating domain land which remained in force are applicable only to an area of no more than 15,500 hectares, admitting of cultivation, and to 200,000 hectares which were decreed in the first place to be attached to the State.

We come thus to the royal decree of 31 January 1909 which fixed the land organization of the colony of Erythrea (1).

A. — *Placing of lands at the State's Full Disposal*

The measure of placing lands at the State's full disposal is identified with the jurisdictional regulation of land, and was necessary to the introduction of a regime of agricultural grants according to precise and definite criteria.

(1) Supplement to the *Bollettino Ufficiale della Colonia Eritrea*, 25 July 1909, No. 28.

The jurisdictional regulation of the lands is the subject of Clause I. of the royal decree of 31 January 1909, which establishes that property in the colony's soil belongs to the Italian State, the rights being safeguarded which belong to the native population, as well as those which may belong to third parties as the result of a title emanating from the Italian government or recognized by it (Article 1). The rights of the native population to the land they enjoy in conformity with old local customs will be respected (Article 2). The public domain includes roads (railways and cart and caravan roads), the seashore, the ports, gulfs and beaches, military stations and fortresses, telegraph and telephone lines, and in general all property intended for public use (Article 3). The domain includes surface and subterranean watercourses, the chief dividing lines of waters and natural springs. Only a right to use the waters can be granted, and such use is always subject to the exigencies of public interest, in the measure of the property's need. Otherwise the waters belong to the domain. No works of deflecting or gathering the waters can be executed without the government's express authorization.

The colony's domain of which disposal may be made includes :

- a) lands which were recognized before the Italian occupation as belonging to earlier governments ;
- b) lands formerly belonging to native tribes, parts of tribes, races or families now extinct ;
- c) lands abandoned for more than three years by the native tribes, parts of tribes, races or families to which they belonged ;
- d) lands in the various circumstances in which according to native custom they devolve on the State ;
- e) lands which reached the condition of confiscated property ;
- b) woods and forests ;
- g) mines, quarries and salt-mines ;
- h) lands frequented by populations practising migratory pasturage, on which however the rights to pasturage and to the waters of such populations must always be respected within the limits prescribed by necessity ;
- i) the *gulti* (fiefs) constituted for offices, individuals, families or determined religious organizations, on which however the customary usufruct of fixed populations (1) must be respected within the limits prescribed by necessity ;
- j) in general all lands not comprised under Articles 2 and 3, those of which Article 1 treats being reserved.

The lands of which there is question in Article 2 may be resumed by the State, and assigned according to circumstances to the public domain or

(1) As regards this provision it should be noticed that if the *gulti* affect private property (*resti*) it does not add an inch of land to the domain. If however it affect lands which may really be disposed of, the authority to dispose of them is inactive since all such lands, whether *gulti* or not, belong to the domain. The only declaration that had to be made was that the rights of *gulti* were abolished, the *gulleghna* being thus deprived of all excuse for receiving any tithe, tribute or other feudal due.

the alienable lands, if they are destined for public use or for an occupation enabling works in the public interest. This may happen when it has by some means been established that military exigencies or those of the public interest render the lands necessary, when they are to be used to form or extend urban centres, or when they seem to be too extensive for the needs of the population using them, if the agricultural and agrarian customs of these be taken into account. In all these cases there is an equitable decision as to whether there is occasion to grant compensation. Its amount will always be fixed in accordance with the value of the use of which the occupiers have been deprived.

All provisions relative to these matters are made by a decree of the governor of the colony, issued after the arguments of those interested have been heard. There is no appeal against such decree.

Third parties holding rights in land, on the terms of Article 1, may be expropriated for a reason of public interest, legally recognized, if a just indemnity be paid to them. A decree of the governor declares the existence of such a reason and pronounces the sentence of expropriation. When an amicable settlement with the expropriate is impossible arbiters fix the indemnity (Article 8).

The lands in question in Article 2 are burdened with the payment of a land tax which may be lumped with the general tribute due from the native populations. The government of the colony may grant to natives of the colony enjoyment of lands of the domain, in proportion to their needs and in return for the payment of an annual due.

In Article 11 it is stated that lands and other real estate and rights relative thereto, in whatever manner they accrue to the domain, to citizens or to strangers or to anyone within the zone of building lands, are subject to the Italian jurisdictional regime, special provisions as to them being safeguarded.

The lands enjoyed by native populations by the terms of Article 2 are subject to the regime created by the various customs of the localities in which they are situated.

Article 13 establishes that except in the case of urban properties the creation and transmission of any right attaching to real estate are forbidden, as between natives and others.

Such are the provisions of the decree of 31 January 1909 regarding the jurisdictional regime of lands in Erythrea.

B. — Agricultural Grants.

Lands accruing to the alienable domain are intended for colonization, the customs and the needs of the native populations being safeguarded. The public authority grants to a certain person the right to enjoy certain real estate, for a stated object and period, in accordance with the provisions of Clause III of the decree in question. Analogously the rules relative to the property affect the grantee's rights in the real estate, in the absence of contrary provision.

The new organization establishes that the lands of the domain must always be alienable for the purpose of colonization, and prescribes that 2,000 hectares in the temperate zone of the high plateau be at once divided into lots in order to provide for small grants, which may be of agricultural land, of building sites, of land for industrial purposes, of mines or of land for special objects. It would take too long to examine all these types of grants. We will confine ourselves to those for the purposes of agriculture and industry, which merit our attention since they are within the scope of this article and are capable of most influence on the economic future of the colony. They may be said to form the pivot of the whole land regime.

Grants having an agricultural object may be made : a) to Italian cultivators themselves directly exploiting the land granted to them ; b) to Italian cultivators provided with capital and personally managing their farms ; c) to capitalists, societies of capitalists, legally constituted producers' societies or other corporate bodies recognized by the law and undertaking an agricultural enterprise.

Grants aiming at agriculture are of three kinds : two, corresponding to those mentioned under letters *a* and *b*, emanate from the governor ; the third, which corresponds to letter *c* from the royal power. Those of the first kind are absolutely free as regards a lot having the approximate area of 25 hectares or one or more parts of such lot. When grants are sought within a radius of less than five kilometres of an inhabited centre they cannot usually comprehend more than a quarter of a lot -- 6.25 hectares. They can be granted to Italian settlers (1) who cultivate them personally and have a capital of at least 50 liras for each hectare they receive. At the end of five years they become the grantee's absolute property if he have fulfilled all conditions imposed on him. Grants of the second kind are made to Italian cultivators who prove that they possess a capital of 100 liras for each hectare they receive and who personally cultivate the land. The grant to them may not be of more than 200 hectares or for a longer period than thirty years. It is conditional on their payment of an annual due fixed by the governor every three years. If however the grantee fulfil all terms of the contract he may after five years become absolute owner of the granted land when he has paid a sum equivalent to the capital on which such annual due would be interest, at a rate previously fixed by the governor. Grants of the second kind cannot be made within a radius of less than ten kilometres of the chief urban centres.

While grants of the first and second kinds are made in the districts having a temperate climate, those of the third kind affect essentially lands having a torrid climate and are made to capitalists or societies of capitalists for the purposes of industrial agriculture. Usually they may not be of more than 10,000 hectares but exceptionally they may be of as much as 25,000 hectares. The term of the grants is fixed at ninety-nine years but they may be

(1) With the minister's special authorization grants of the first and second categories may even be made to foreigners.

prolonged for three terms of thirty years each. Land thus granted can never be converted into absolute property.

Further special grants of pasturage for the raising of live stock are made on lands not adapted to arable farming. They are for a term of ten years and may be renewed for other ten years, and they should be regarded as grants of the third kind.

The government of the colony may also alienate limited extents of territory, by agreement or auction, if the intention be to cultivate them.

Minute rules fix the obligations of grantees to the administration and third parties as well as the duties of the administration.

If the granted land or part thereof be not cultivated the grant lapses, totally or partially. Sub-letting is forbidden, and conditions have been determined for the payment of the due, the lapse and the revocation of the grant, and eventual expropriation. Grants may not be ceded to third parties without the administration's consent, and any such cession must affect all the land granted and such of its moveables and other accessories as serve the cultivation or other necessity of the property. Lands which are the subject of grants of the two first kinds and their accessories and easements may not be the object of a distraint for debts of any kind whatsoever. On such lands and their dependencies products in kind may not be pledged or sequestrated unless to pay debts contracted before the grant was made and having some connection with the grant. Provisions necessary to the nourishment of the grantee and his family may not however be pledged in any case before the next harvest, nor may seeds needed for the coming season.

Lands the subject of grants of the two first kinds may not be burdened with mortgages.

On obtaining the administration's formal authority the grantees of lands may receive agricultural loans of capital, in the form and with the privileges established by the provisions in force in the kingdom of Italy, the capital to be used for useful and permanent improvements and for extraordinary works profitable to the granted land. Such loans may be secured by mortgages. In order that granted land may not be subdivided the organization limits the holder's power to bequeath it.

All grants are exempt from payment of dues on contracts and of taxes for ten years.

The administration may make agricultural loans in specie to grantees of the first kind for the purchase of live stock, implements and other stock, the construction of houses and rural buildings and other useful and permanent improvements. The administration, or eventually the Commissariat of Emigration of Rome, may — exceptionally and when the funds assigned to colonization permit — advance the sum needed for the journey from Italy to the colony, and for implements and household necessities, to three or more adult persons of one family, fitted to cultivate granted land and desirous of a grant of the first kind, but without the necessary capital. The capital necessary to installation, to the exploitation of the land and to nourishment until the first harvest has been garnered is also granted.

The administration may promote the constitution of *consortiums* for the execution and maintenance of hydraulic works, works of improvement and works connected with roads, if these be of recognised utility to the grantees, and also for the common purchase of machines, seeds and other such articles. The administration ought to participate in the consortium as it may increase the value of neighbouring domain lands which have not yet been granted.

When these works are also of general utility the administration should bear a proportionate part of the expense. When moreover it seems necessary the administration may form obligatory consortiums, bearing not less than a fifth share of the total cost of the labour or work undertaken.

The ordinance has also fixed the obligations of the government to new centres of colonization which may be formed.

The second chapter of Clause III (*Of Grants*) is concerned with *grants of land for building*, the third chapter with *grants for industrial objects*.

As regards the latter it should be noted that the governor makes special grants for the harvesting and utilization of products, whether growing wild or cultivated, which are called industrial, of land having an area not exceeding 10,000 hectares and for terms of no more than fifteen years. In other cases the grants are made by the central government.

Other grants may be made by the governor by contracts fixed as each case presents itself, for quarries, ovens and agricultural and industrial experiments. Woods may never be the object of grants, the colony's government being responsible for the sale of forest-trees and other woods according to the rules of the forest code (Chapter V. of the same clause: *Various Grants*).

Chapter IV. of the same clause deals at length with *mining grants*, which by their nature are outside the scope of this article.

Chapter VI. deals with the procedure of the *application for and the delivery of granted land*.

Clause IV. is concerned with the *cadaster*, divided into the *rural cadaster* which comprises all lands accruing to the domain except those included in the regulating plans, the *urban cadaster* which comprises the districts included in the plans regulating building in inhabited localities, and the *special cadaster* in which are entered lands in determined zones or localities on which particular rights exist or which present a particular interest, and in the case of which criteria and rules other than those prescribed by the rural and urban cadasters must be followed. This important clause is subdivided into four chapters, of which the first is concerned with the *institution of the cadaster*, the second with its *formation*, the third with its *publication* and the fourth with its *preservation*.

As regards the rural cadaster, which is the one most interesting to us, we would briefly notice that it is divided into three categories: a) lands of the high plateau within a radius of five kilometres of the urban centres of Asmara, Addi Ugri, Saganeiti, and other lands which the government may designate; b) other lands within the temperate zone; c) lands within the districts having a torrid climate. Within the lands comprised under letter a grants may

not, as has been said, comprise more than 6.25 hectares, that is a quarter of a lot.

It is established that a beginning is at once to be made in entering lands in the cadaster. Gradually they will be divided into lots of 25 hectares and each lot will be divided into four parts. Lands having a torrid climate are however to be registered in the cadaster as the occasions for granting them arise, without any division into lots.

The provisions regulating the organization of the cadaster are likewise precise. The organization is provided: *a*) by the cadaster's map of the colony, on which the various lands of interest to the cadaster are marked; *b*) by maps showing geographically the lands of the domain, their division into lots and their respective sections; *c*) by the census table which has a volume for each map, while each volume has a folio for each lot comprised in its map, giving the description, value and other particulars as to such lot, and its easements and rights; *d*) by a register establishing how and why a property belongs to a given owner, and any limitations of his right to dispose of it resultant on his personal disability, whether such be due to his minority, or to a suppression or prohibition of his ability; *e*) the table giving owners which forms the general list of the properties.

Rights in real estate and alienations of these are legally affirmed only by entry in the registers of the cadaster (Article 206).

The organization provides for all the conditions modifying entries in these registers. All such entries are made by the keeper of the cadaster with whom the map is deposited and who is answerable for it. The keeper is moreover responsible for losses which may be incurred through incomplete or erroneous entries.

We will not notice the temporary provisions of the ordinance, the term for which they were valid having already expired. We will merely add that the application of these rules, and of many others connected with the improvement of values in the colony and the examination of its economic resources, is entrusted to a special governmental directing body called the Direction of Colonization.

§ 4. COLONIZING EXPERIENCE.

In the beginning of 1907 the lands forming the subject of agricultural concessions to Europeans had a total area of 11,053 hectares.

The list annexed to Number 60 of the report on the colony of Erythrea presented to parliament in 1913 (vol. II.) gives all the data relative to the various concessions, their situation and extent and the object for which they were granted.

It does not include the early concessions in the plain granted before 1896 and abandoned for years by the grantees, nor some small farms, granted temporarily and not regularized. The latter have little importance.

These 11,053 hectares are divided as follows :

3,420.7204 hectares on the high plateau, populated by Abyssinians and recognized as part of the domain by a special governor's decree ;

5,339.8071 hectares in the plain, towards the sea and in the Mendri Bahari — the concessions in the plain adjoining the sea are part of the lands considered as belonging to the domain because populated by Mussulmans ;

2,292.6099 hectares in the interior of the colony in lands inhabited by Mussulman populations beyond the high plateau.

If they be considered in the light of the objects for which they were granted the concessions are distributed as follows :

113.9051 hectares. Special grants to missions, churches, convents and small farms of building sites, in localities in which, according to the provisions earlier in force, the grant of lands for building was not allowed.

1,330.1912 hectares granted to agricultural settlers, solely or chiefly occupied with agriculture.

1,199.8869 to settlers for whom agriculture was a secondary occupation, they being chiefly occupied by a trade.

8,409.1542 granted for purposes of industry to societies or firms having capital. This category includes the concessions fulfilling an industrial object because of their extent, or because special crops are grown in them or special systems adopted for their cultivation.

In the period from 1 November 1902 to December 1912, and according to results obtained by the Erythrean mission of A. Omodeo, V. Peglion and G. Valenti (1), 289 grants were made of a total extent of some 26,000 hectares, in which the large and sometimes indeterminate concessions for the cultivation of industrial crops were included. These concessions can be classified as follows according to their extent :

Area		Number of concessions
—		—
Less than	5 hectares	50
from 5 to	25 "	138
" 25 "	50 "	57
" 50 "	200 "	21
" 200 "	500 "	11
" 500 "	1000 "	5
More than	" 1000	7
Total		289

(1) Rome, Bertero, 1913.

The following figures give the area of the concessions :

From 1 November 1902 to 1 November 1909 — still in force:	8,300 hectares
From 1 November 1909 to 31 December 1912 — still in force:	
1st kind	471 "
2nd "	1,061 "
Agricultural concessions of 3rd kind still in force on 31 December 1912 (approximately)	12,000 "
	21,832 "
Concessions granted from 1 November 1902 to 31 December 1912, revoked or renounced	3,313 "
Concessions granted for limited or expired terms . . .	573 "
	25,718 hectares

To these concessions there should be added three grants for the exploitation, the harvesting and the industrial use of products growing wild (fruits of the *dum* palm-tree, castor-oil grain, indiarubber and sesamum grain). Another concession was of pasture over an area of 300 hectares.

The preceding data cannot, although taken from official documents, be considered as based on more than approximate calculations. It should also be noted that all grants are not now active, whether because grantees have failed to derive a profit, or because their recent date has not allowed the necessary steps to their occupation to be taken.

From other data, taken from an authorized source, it appears that until September 1915 there had been 102 grants of the first and second kinds of land held in free and absolute ownership, having a total area of 3,392.0969 hectares.

From an official source we learn also that concessions for quarries and ovens up to the end of 1915 numbered twenty-seven. Mining concessions and permits for searches and superficial borings up to 15 April 1916 numbered eight and the grantees included two syndicates, to one of whom were granted the goldmines of Cheren and to the other the peridot mines of the islands of Kad Ali.

Finally at the end of 1916 four permits were granted to gather the fruit of the *dum* palm-tree in the domanial woods of Barca.

* * *

These results to which Italian colonization in Erythrea has hitherto attained and the numerous studies of which they have been the subject allow the statement that this colony cannot, and never can be, an outlet

for superfluous population. We have not space in which to examine the reasons for this statement. Some of them have however an importance shown by their mere enumeration, as for example the climate against which Europeans contend with too much difficulty, the relative density of the population by natives, and their attachment to the soil of the country.

Further Erythrea is not and never will be a purely farming colony, for a government who understand the interests of the mother country can never desire a colony which is only agricultural since in such there is bound eventually to be an opposition of interests. Erythrea should rather be utilized for economic purposes. To this end it is important that a profit should be drawn from all its various natural and social elements, and that it should be worked by Italian settlers associated with natives.

Looked at in this aspect the colony of Erythrea presents total assets of great importance. It is the human element which, in Erythrea as everywhere else, has a high value.

To solve this problem in relation to the whole rural economy of Erythrea we must follow the advice of Marchi, who stated that not substitutes for the native, but men able to direct and make use of him, should be sought. It is on this principle that the present programme is founded

RUSSIA.

THE RESULTS OF THE NEW AGRARIAN REFORM IN RUSSIA.

PART II.

§ 5. LAND ORGANIZATION ON NADIEL LANDS.

In the first part of this article (1) the organization of the enquiry, the farms as constituting its object and the twelve provinces in which it took place, were described in their general outlines. We wish now to examine more closely the results attained by the enquiry and to be able to establish the influence which the new forms of tenure and agriculture have had on the course and the development of peasant farming in Russia.

The average size of those of the investigated farms which were on *nadial* land was as follows in the twelve provinces:

	Settled <i>Nadial</i> Land	Unsettled <i>Nadial</i> Land & Bought Land	Total deciatines (2)
Houtor farms in which home- stead has been moved	12.5	1.2	13.7
Houtor farms in which home- stead has not been moved. . .	7.6	2.5	10.1
Otroub farms	12.3	2.0	14.3

If only the settled land of the unified holdings were taken into account, these average figures would in general correspond with that which expresses the average area of the farms settled on *nadial* land in all the forty-seven governments of European Russia in which the agrarian reform has been carried out, namely 10 deciatines [1,252,020 peasants' farms having a total area of 12,553,046 deciatines (3)]. The average area of peasant holdings

(1) *International Review of Agricultural Economics*, December 1916.

(2) 1 deciatine = 2 acres 2 roods 31.9555 poles.

(3) Отчетные свѣдѣнія о дѣятельности Землеустроительныхъ Комиссій на 1 января 1915 г. (*Memorial on the Activity of the Land Readjustment Commission up to 1 January 1916*). Published by the Department for the Tenure of State Land, 1915.

varies very notably in different provinces, from 3.1 deciatines in Krementschug province (Government of Pultava) to 41.1 deciatines in Nikolajevsk province (Government of Samara).

Unification and the rendering contiguous of the parts of holdings has distinctly improved the condition of the land and the method of employing it, in comparison with the time before the land settlement. The fact that the land was so much cut up into parcels and that the parcels were scattered over the whole of the communal property, together with the distance at which they lay from the homesteads, often made it impossible, because unremunerative, to cultivate the strips which were furthest removed in spite of the very noticeable scarcity of land. After the land readjustment there was an unmistakable and total change in the position, a point which we illustrate in the following table.

The Distribution and Relative Distances of the Parcels of Holdings of Nadiel Land in the Different Provinces before and at the Time of the Settlement.

Farmers of nadiel land.		a = before the settlement b = at the time of settlement	Total in all the provinces
Having 1 strip of land	a	553	
	b	3,751	
" 2 " " "	a	299	
	b	6,931	
" 3 " " "	a	538	
	b	2,515	
" 4-5 " " "	a	2,061	
	b	908	
" 6-10 " " "	a	3,810	
	b	78	
" 11-20 " " "	a	2,863	
	b	—	
" 21-40 " " "	a	2,288	
	b	—	
" 41-60 " " "	a	973	
	b	—	
" 61-100 " " "	a	622	
	b	—	
" more than 100 strips of land.	a	212	
	b	—	
Nadiel farmers having the furthest removed strip at a distance from the homestead of			
0.0 versts (1)	a	235	
	b	3,715	
up to 0.25 "	a	108	
	b	776	
0.25 to 0.5 "	a	596	
	b	1,062	
0.5 " 1.0 "	a	2,089	
	b	1,513	
1 " 3 "	a	4,093	
	b	2,980	
3 " 5 "	a	1,785	
	b	1,731	
More than 5 "	a	5,177	
	b	2,406	
Houtor farmers having the furthest removed strip at a distance from the homestead of			
0.0 versts	a	22	
	b	2,505	
up to 0.25 "	a	28	
	b	109	
from 0.25 to 0.5 versts	a	223	
	b	184	
" 0.5 " 1.0 "	a	891	
	b	301	
" 1 " 3 "	a	1,697	
	b	301	
" 3 " 5 "	a	286	
	b	59	
More than 5 versts	a	733	
	b	121	

(1) 1 verst = 1166.332 yards.

This table gives us a deep insight into the whole agrarian revolution which is being accomplished in European Russia. Of the 14,183 farms on *nadiel* territory investigated the land was before the settlement held in one strip in only 553 (3.9 per cent.) ; and in 2,898 (20.4 per cent.) was divided into from two to five strips. The land of the other farms was scattered in six, twenty, forty or even more than a hundred strips. This parcelling of the land of a holding was especially marked in the provinces of Ostrov (Government of Pskov), Sitschevka (Government of Smolensk) and in Mologa (Government of Jaroslav), where farms having less than eleven separate parcels of land were not to be met with at all. Of the whole number of the farms investigated scientific agriculture was in consequence possible only in 24.3 per cent. After the settlement not a single farm remained which included more than ten separate parcels of land, and even such number was found only in few (0.6 per cent.) ; in 3,751 farms (26.4 per cent.) the land had been united into one piece to form *houtor* farms ; in 48.9 per cent. of the whole number it had come to be divided into two ; and in 17.7 per cent. into three pieces. It is to be noted moreover that the site of the homestead was reckoned as a separate piece. If this circumstance be taken into account it appears that almost half the total number of farms had had their land unified into one piece. If to these the *houtor* farms be added, 75.3 per cent. of the total number are found to have had their lands made contiguous. The chief evil of the conditions of peasant farming, the great parcelling of the land and the extent to which the parcels were scattered, has been if not entirely removed yet much reduced.

Certain rights, such as those in woodland, meadows and gardens, have not come within the scope of the unifying process because they have a particular value distinct from average values. Therefore it has been necessary to deliver land divided into from four to five parcels to 6.4 per cent. of the farms. There were also lands unfit to be tilled which could be used only for herding cattle. Such lands, which formed 10 per cent. of the whole area settled, were left as common meadows. This was the more necessary because at the beginning of the settlement the questions of fodder and of the use of grass pasture were not settled, and therefore a sharp break in the tenure of the huts standing on the summer meadows, which hitherto had been common property, was to be avoided if possible. Many peasants before the time of the enquiry of 1913 bought new land in addition to that awarded to them under the settlement, to which they thus added a second piece. The unification of such bought land with the *nadiel* land was first made possible by the law of 29 May (11 June) 1911 which had force from 15 (28) October. The bought land was until 1911 so regulated that it could not be used for the farms formed up to that date. This partly explains why in 21 per cent. of the *houtor* and *otroub* farms investigated there were altogether, besides the settled land, 26,863 deciatines not included in the unified farm land.

As regarded the remoteness of the peasants' lands from their homesteads remarkable results were, as appears from the table, also attained ;

but this evil can be entirely cured only when the site of the homestead is removed to the *otroub*.

After the settlement 1,292 peasants (7.4 per cent.) (1) sold the entire holdings of *nadiel* land allotted to them, and 1,121 (6.4 per cent.) sold part thereof, such sales including altogether 2,413 farms having a total area of 18,766 deciatines. Among the causes for these sales is the circumstance that many peasants live outside their farms, being occupied as employees or labourers, and have long since lost all connection with the land; and that for others their holdings had become too small and they sold them in order to emigrate to Siberia or to buy larger holdings from the Land Bank or the crown. The ruin of some farms, whether as a result of bad harvests, cattle disease, the lack of labour in a family or other cause, was also instrumental in bringing about sales. The average price of the land was raised by almost 50 per cent. after the settlement.

In Siberia and European Russia 22,022 deciatines were bought by the peasants after the settlement, that is more than the 18,766 deciatines which they sold. This is proof that the economic basis of the newly formed peasants' farms is firm and solid, and that even in the initiatory period, when farming had to be fundamentally reorganized, most of the peasants were able to increase the area and importance of their farms by buying land. The number of farmers who took land on lease after the settlement increased in all the provinces except Mologa. The average area of leasehold land belonging to a farm decreased however; and so did also the number of lessees, even considered in relation to the decline of the average area of leasehold land. Rents rose very notably after the settlement. The question of the subdivision of farms among heirs received very particular attention at the enquiry. The number of farms thus subdivided — 323 (2.2 per cent.) — was small and 752 farms had been formed from them. The position of these resultant farms was in general not prosperous. In order to provide in the future against the formation of such economically weak and unprofitable peasants' farms the Chief Office of Land Organization and Agriculture has placed before the Duma a scheme for a law, entitled "Measures for Lessening the Subdivision of the Lands of Small Farms formed with State Aid".

§ 6. LAND SETTLEMENT ON THE LANDS OF THE PEASANTS' LAND BANK AND ON CROWN LANDS.

Land settlement is generally far easier on lands acquired from the Peasants' Land Bank or the crown than on *nadiel* land. In the case of the former it is not necessary, as in the work of unifying strips of land of differing values on *nadiel* land, to give when measuring and allotting any attention to the present and past interests of the villagers. Only considerations of a technical kind have to be taken into account when the crown and bank land are

(1) Eight farms which arose as a consequence of subdivision by inheritance are included.

allotted — as that of contriving such a favourable division of the *houtor* and *otroub* farms as will bring them nearest to a square form, and of providing a water supply and rights of way. A valuation is undertaken in this case with a view to establishing only the selling price; and land settlement can therefore be brought to a more advanced stage of completeness.

The enquiry covered, as has already been said, 4,832 farms on bank and crown lands, 2,566 of them being settlements on *houtor* and *otroub* land and 2,276 *otroub* farms of which the owners had remained on their *nadiel* lands. This property was taken over from the peasants by the following stages.

Year of taking land over	1907-08	1909	1910	1911	Total
Number of farms	1,090	1,851	1,460	431	4,832
Percentage of their whole number	22.6	38.3	30.2	8.9	100

Thus at the time of the enquiry nearly 90 per cent. (22.6 + 38.3 + 30.2) of all farms had enjoyed the new conditions for more than three years, and almost 60.6 (22.6 + 38.3) for four years and more. The farms altogether comprised 77.7 per cent. of arable land, 6.4 per cent. of meadowland and 15.9 per cent. of land otherwise employed.

Holders to the number of 3,373, or 69.8 per cent. of the whole number, were allotted land held in one piece; 1,377 or 28.5 per cent. received land divided into two pieces, and 82 or 1.7 per cent. land divided into three or more pieces (1). Thus in settling these properties it was not always found possible to give all the peasants land held in one piece; for the existing division of woods and meadows necessitated sometimes the allotment of a second or a third strip to a farm. In addition 37 per cent. of the peasant buyers received a common meadow which comprised 11.7 per cent. of the land bought.

The average size of the bought pieces of land was 20 deciatines, their area varying from 8.3 deciatines in Bogoduchov province to 29.4 deciatines in Nikolajevsk. These farms are thus twice as large as those on *nadiel* land, a fact which must of course be carefully kept in mind if a comparison between the farms of the two classes be made.

The area of the leaseholds of farmers was equivalent to 32.3 per cent. of their holdings of crown and bank lands, and therefore stood to these in much the same proportion as did the leaseholds of the other peasant holders to their *nadiel* land, the percentage in the latter case being 34.7 per cent. (29.6 per cent. before the land settlement). Even in a province so rich in land as Nikolajevsk, where the average holding attached to a homestead is

(1) The site of the homestead was when separated from the land of the settlement reckoned as a separate strip.

of 29.4 deciatines, there are leaseholds. The circumstance cannot be ascribed to scarcity of land but to the cause which has given rise to leaseholds on *nadiel* lands, namely the endeavour of the peasants to enlarge their farms, to extend their property.

§ 7. FINANCIAL SUPPORT OF THE PEASANTS UNDER THE LAND SETTLEMENT.

When the land was settled money was assured to the peasants, both for removing their farm buildings and for carrying out the simple improvements prescribed, in the form either of a loan or a gift. The amounts of the sums thus expended on the farms on *nadiel* land and on bank and State domains within each province are shown in the following table:

Financial Support given to the Population when the Land was Settled.

a) ON NADIEL LAND.		Total for all prov.
No. of farmers moving their homesteads		3,781
They received from Credit of the Land Settlement:		
Loans	No.	1,522
	Amount in roubles (1)	165,944
Gifts.	No.	140
	Amount in roubles	8,177
No. of farmers not moving their homesteads		11,154
They received from the Credit of the Land Settlement:		
Loans	No.	908
	Amount in roubles	81,022
Gifts.	No.	162
	Amount in roubles	5,861

b) ON LANDS OF THE BANK AND STATE DOMAINS.

To those moving their homesteads the Land Settlement Credit paid:		
Loans		1,805
Gifts		149
To those not moving their homesteads the Land Settlement Credit paid:		
Loans		94
Gifts		2
Total of:		
Loans in roubles		231,288
Gifts in roubles		9,097

(1) 1 rouble of 100 kopecks = about 2s. 1 1/2d. at par.

As this table shows, the peasants who had bought lands from the Peasants' Land Bank or the administration of the State domains were more generously supported with money than those on the *nadiel* land; but on the other hand the former were obliged when they took over their lots to pay in advance out of their own means 10 per cent. of the purchase price, and 15 per cent. of them were in consequence left destitute of possessions and therefore much in need of help. On the whole financial support was extended to a relatively small number of the peasants and the number of gifts made was too trifling. The average sum of money received was 105 roubles a homestead, against which must be set the average cost of moving a homestead, setting up buildings and carrying out improvements, namely 238 roubles a homestead. Thus the giving of financial support was in no sense a philanthropic enterprise and could not act as a bait to the peasants to fall in with the reforms of the Land Readjustment Commission.

§ 8. THE ECONOMIC POSITION OF THE NEW PEASANTS' HOLDINGS IN SEVERALTY.

In order to understand the economic position of the new farms held in severalty the investigators of these made a great point of establishing, by searching questions and tests, the value of the improvements made by the peasants on their holdings after the settlement, and that of their buildings, their cattle and all their possessions. A comparison thus became possible between the position of the farms before and after the settlement. It has appeared in general that in the farms situated on lands of the Land Bank and the State domains the value of improvements, buildings and live and other stock is, in comparison with that existing before the land settlement — that is before the pieces of land were bought — distinctly higher than it is in the case of the farms in severalty on *nadiel* land. This is not surprising since we know that the farms of the first category are twice as large as those of the second (§ 6), and are moreover of earlier origin and held on a peculiar basis. A comparison of the economic positions of the two kinds of farms is possible only under reservation, and should be made not as between farms but as between areas.

a) *Improvements and Buildings.*

With the remodelling of farms and tenures and the settlement of the land, what may be called the psychological relation of the peasant to his holding alters. The awakened sense of ownership gives rise to the wish to employ the land economically and make the smallest plot as productive as possible. Marshes are drained, stony soil is rendered tillable, land overgrown with bushes is cleared. Although when the enquiry was made most of the farms had enjoyed the new conditions only for from three to four years, more than a third of the farmers in severalty of *nadiel* land, 75 per cent.

of them being *houtor* farmers, had made most important improvements. The value of these was placed at 288,057 roubles, an average of 47 roubles 33 kopecks a farm, the average in the different districts varying from 11 roubles 74 kopecks (Krementschug) to 140 roubles 70 kopecks (Nikolajevsk). The average area on which improvements have been made by *houtor* farmers is larger by 44.1 per cent. than that which *otroub* farmers have improved.

On the lands of the bank and the State domains expenditure on improvements after the purchase of the land was ten times greater than it had been in the case of the earlier holders. The average expenditure on improvements on a farm, as well as the number of farmers undertaking improvements, were on these properties larger than the corresponding averages for *nadiel* lands.

As regards buildings, not only the number of dwellings but also that of stables, byres and barns has grown; and this, as the report adds, points to the conclusion that the number of *houtor* farms grew even after the settlement, because the *otroub* farmers removed their farm building from the village area to their newly settled lots. The number of farmers having no farm buildings has been almost halved: it has sunk from 404 to 210. The value of the buildings rose on the investigated farms on *nadiel* land from 7,398,449 roubles to 9,224,963 roubles, that is by 1,826,514 roubles or 24.6 per cent.; on the farms on lands of the Peasants' Land Bank and the State domains — according to the estimate of the possessors themselves — from 2,136,159 roubles to 3,098,866 roubles, that is by 962,707 roubles or 45.1 per cent.

b) *Live and Other Stock.*

Before the settlement the land was so split up that the employment of modern agricultural machinery was not only economically unprofitable but also technically impossible. This condition altered rapidly after the strips of land had been united, and the change from the three-field system to that of intensive agriculture accomplished. The primitive implements — the plough-hatchets, the wooden harrows — have been superseded; new machines have been bought to an important extent, such as sowing, mowing, winnowing and threshing machines. This is especially the case in *houtor* farms, on some of which the value of all the stock other than live stock is double what it was originally. The employment of agricultural machines has been extended by the dépôts of zemstvos and the government as well as by private owners. The corn-winnowing and sorting machines have especially increased in number in the north and north west provinces; the sowing, mowing and hay-harvesting machines in those of the south and south east. The total value of the stock other than live stock rose in the 17,567 farms on *nadiel* land from 836,642 roubles to 1,174,327 roubles, that is by 40.4 per cent.; in the farms on lands of the bank and the State domains it rose from 382,584 roubles to 779,558 roubles, that is it was nearly doubled.

The live stock increased absolutely on all the farms investigated, if they be taken together, but not in the same measure as the other stock. As regards

live stock the proportionate increase or decrease differs very much in the two classes of farms : on the lands of the Peasants' Land Bank and the State domains, where the newly bought land had to be cultivated, the number of animals increased throughout on every farm ; but in the farms on *nadiel* land, especially in the first years, the average number for each farm was slightly diminished. The number of the horses was reduced from 24,507 to 23,589, that is by 3.7 per cent ; that of the cows from 21,845 to 21,607, that is by 1.1 per cent.; and the number of the sheep from 46,720 to 30,384, that is by 35 per cent.

The diminution of live stock is to be ascribed to the fact that when removals took place, more or less spontaneously, to the self-contained farms held in severalty, the earlier common meadows were in most cases done away with, and the stall-feeding of live stock is as yet not practised to a compensatory extent. The state of affairs is to be regarded however as only transitory ; for as soon as all the elements existing in a farm have been adjusted to the new factors affecting them, an increase in the number of live stock occurs. This is noticeably so in the case of sheep, as to which to accept the statement that in the new conditions of peasant farming their number dwindles would be unjustifiable or at least premature. The investigations made at the Pultava experimental station have discovered, in this connection, that sheep herded on meadows and fed in stalls are almost equally profitable, and that the reduction in the number of sheep is transitory. At the beginning of the land settlement, when farms were being reorganized, the keeping of sheep diminished owing to the lack of meadows ; but as the farm adjusted itself to the new conditions sheep, pasturing near the homestead and fed at night with some summer grass and grass of the steppes, appeared again (1).

As regards cattle generally the decrease in their number is throughout very small, especially if a calculation be based on a given area of land instead of a single farm. It is then discovered that on every 100 deciatines of all the land, whether newly settled or not, the following average number of live stock is found.

	Horses	Cows	Young stock	Pigs
In farms on <i>nadiel</i> land	11.7	10.7	7.1	13.1
» » » bank » & State domains	11.3	7.6	5.7	6.9

It appears thus that, when the calculation is made for a given area, the *nadiel* farms, although generally only half as large as those on bank lands and State domains, are more richly provided with live stock. This relation between the two classes of farms is particularly clear when the amount of live stock held on farms of the two categories in single provinces is compared, as in the following tables.

(1) *Review of Agrarian Assistance given in the Districts of the Land Organization in the Government of Pultava in 1914.* Published by the Government Zemstvos of Pultava, 1915. p. 45.

Farms on Nadiel Land.

Provinces	Average area of investigated farms in deciatines	On 100 deciatines			
		Draught horses	Cows	Young Stock	Pigs
1. Nikolajevsk	48.2	6.1	3.5	2.3	2.5
2. Krasnoufimsk	23.2	11.8	9.3	6.5	4.7
3. Berdjansk	16.5	15.4	7.4	4.8	5.6
4. Ostrov	14.7	8.8	21.8	8.0	11.7
5. Rschev	13.8	12.2	14.1	6.3	7.8
6. Trokki	11.7	13.7	18.3	13.1	37.2
7. Sitschevka	11.3	13.9	12.7	6.6	10.7
8. Mologa	10.7	8.8	12.9	6.8	4.3
9. Orël	8.4	11.1	11.3	6.5	9.3
10. Bogoduchov	7.8	14.2	11.2	9.9	18.9
11. Kremenchug	5.9	17.8	12.6	12.7	18.4
Average	13.8	11.7	10.7	7.1	13.1

Farms on Lands of the Agrarian Bank and State Domains.

1. Nikolajevsk	38.2	11.7	5.2	4.1	4.2
2. Krasnoufimsk	31.1	8.2	6.6	4.6	3.4
3. Ostrov	22.4	6.7	15.5	7.4	8.9
4. Berdjansk	21.7	12.0	5.6	3.3	7.4
5. Mologa	20.0	6.7	12.7	6.7	8.4
6. Orël	15.7	12.8	8.9	6.6	10.2
7. Jepifany	15.3	14.2	7.7	6.5	8.6
8. Kremenchug	12.3	10.7	9.7	10.4	14.4
9. Bogoduchov	11.3	19.5	10.8	9.4	16.6
Average	21.9	11.3	7.6	5.7	6.9

If these two tables be compared it appears that the average number of cattle kept per 100 deciatines is in most provinces rather higher on *nadiel* farms than on those on bank and crown lands. In four provinces — Mologa,

Ostrov, Rschev and Trokki — the number of cows per 100 deciatines is higher in both classes of farms than that of horses, a circumstance closely connected with the whole method of farming in these provinces, namely with the improved field system, especially with a view to live stock and dairy farming, and with the more extensive cultivation of grass for fodder. In the other provinces however corn growing prevails and this naturally causes draught animals to have most importance among the live stock. For the rest, in every province in which owing to bad harvests or general causes there has been a reduction of live-stock, such reduction is relatively least noticeable in the newly formed farms held in severalty, which circumstance is a clear sign of the staying power of these and their fitness to bear burdens.

§ 9. AGRICULTURAL ASSISTANCE AND THE EXTENSION OF CO-OPERATION.

Agricultural assistance was afforded to the newly formed farms in the provinces of Ostrov, Sitschevka, Mologa, Orël, Berdjansk and Krementschug by the zemstvos; in the provinces of Trokki, Rschev, Jepifany, Bogoduchov and Krasnoufimsk by the government; and in that of Nikolajevsk by the zemstvo and the government. At first the help given took such forms as demonstrations, adapted to needs; and instruction given to the peasants by means of the organization of model farms and experimental cultures; the foundation of stations for cleaning seeds, warehouses for machines and stud farms; the holding of lectures and courses, and the arrangement of cattle shows. It was sought to provide the peasants with the knowledge necessary to farming. Later, as the staff of agriculturists increased, it became possible to undertake individual instruction, to know the peculiarities of every single farm and direct it to that path by which it could secure technical advantages and be economically profitable. Out of the system of provincial agricultural assistance arose the so called *Zevier* agricultural organization, which very much narrows the activities of the province and therefore gives more attention to single farms. If hitherto corn growing had dominated among forms of agriculture and had been the general object of farming, so that the prosperity of peasant farmers depended on a single factor, it was the task of the organization of the local experts to introduce other forms of agriculture, so that the peasants' income might depend upon several factors, and when one of these failed they might derive compensation from another.

The type and the amount of expert help afforded in the twelve districts investigated appears from the following table :

Name of District	Date of Introduction of Agricultural Experts	No. of Agricultural Experts	The Experts included		No. of Farming Leaders and Instructors	No. of Model Cultures	No. of Experimental Farms	No. of Stud Stations	No. of Corn-cutting and Seed-cleaning Machines installed	Other Measures
			State Experts	Zemstvo Experts						
1. Berdjansk . .	1911	6	—	6	9	17	1,259	54	33	{ 7 Dairy Stations. 11 Garden "
2. Bogoduchov .	1911	8	2	6	8	42	272	17	79	
3. Jepifany . . .	1911	2	2	—	6	—	966	5	51	{ 1 Station for Support of Farming. 8 Pig Breeding Stations.
4. Krasnoufimsk.	1912	8	2	6	15	10	550	9	20	
5. Kremenchug	1910	7	—	7	9	45	765	65	37	{ 2 Stations for Poultry Breeding.
6. Mologa . . .	1910	5	—	5	5	—	260	10	35	
7. Nikolajevsk. .	1910	15	4	11	41	31	208	3	127	{ 14 Stations for Pig Breeding. 15 " " Sheep "
8. Orël	1911	3	2	1	15	10	212	26	40	
9. Ostrov	1910	5	—	5	9	—	170	96	2	{ 14 Stations for Pig Breeding. 15 " " Sheep "
10. Rschev	1911	5	2	3	12	—	170	9	12	
11. Setschevka . .	1911	5	4	1	6	—	250	10	51	{ 14 Stations for Pig Breeding. 15 " " Sheep "
12. Trokki	1910	3	3	—	10	87	16	49	37	

As the table shows, the organization of the local agricultural experts was of much later origin than the settlement of the self-contained peasants' farms. This organization extends its support not only to the newly formed farms but also to all farms within its circle of activity, and its help thus reaches the whole rural population. For this reason the whole number of newly formed farms which at the time of the enquiry had had support from the agricultural experts, in the form of advice or more practically, was not large, as appears from the following table :

The Absolute and Relative Number of the Newly Formed Farms on which the Local Agricultural Experts gave Instruction.

Name of Province	Total Number of Investigated Farms except those as to which facts were incomplete	Number of these Farms as to which the Experts advised	Percentage of whole Number of Farms
1. Berdjansk	1,691	225	13.3
2. Bogoduchov	3,658	639	17.5
3. Jepifany	1,509	971	64.3
4. Krasnoulimsk	1,314	618	47.0
5. Krementschug	2,137	974	45.6
6. Mologa	337	228	67.7
7. Nikolajevsk	1,891	426	22.5
8. Orël	1,095	638	58.3
9. Ostrov	1,335	400	30.0
10. Rschev	658	311	47.3
11. Sitschevka	1,373	248	18.1
12. Trokki	2,769	1,137	41.1
Total . . .	19,767	6,815	34.5

Thus only 34.5 per cent. of the newly formed farms have been able to draw profit from the organization of local experts ; all the others were directed to the common measures undertaken in the interest of all the rural population — the model farms, the experimental cultures and the others. The organization has been universally valuable to the rural districts, and has much promoted co-operation, in the form of agricultural co-operative societies, dairy co-operative credit societies, consumers' unions and so forth. The number of peasant farmers adhering to co-operative unions rose very notably after the land settlement, especially in the case of agricultural societies, for the members of these who were *houtor* and *otroub* farmers was almost multiplied by five.

The following table shows the development of these relations before and at the time of the enquiry, and on *nadiel* lands and lands of the bank and the domains.

Number of Farmer Members of Co-operative Unions	Date of fact (1)	On Nadiel Land	On Lands of the Bank and State Domains
All Co-operative Unions	$\left\{ \begin{array}{l} a \\ b \end{array} \right.$	$\begin{array}{l} 2,677 \\ 6,291 \end{array}$	$\begin{array}{l} 561 \\ 2,665 \end{array}$
Co-operative Credit Unions	$\left\{ \begin{array}{l} a \\ b \end{array} \right.$	$\begin{array}{l} 2,520 \\ 6,023 \end{array}$	$\begin{array}{l} 540 \\ 2,610 \end{array}$
Agricultural Societies	$\left\{ \begin{array}{l} a \\ b \end{array} \right.$	$\begin{array}{l} 95 \\ 464 \end{array}$	$\begin{array}{l} 29 \\ 133 \end{array}$
Other Co-operative Unions	$\left\{ \begin{array}{l} a \\ b \end{array} \right.$	$\begin{array}{l} 159 \\ 349 \end{array}$	$\begin{array}{l} 23 \\ 108 \end{array}$

§ 10. AGRICULTURE IN THE NEWLY FORMED PEASANTS' FARMS.

The agrarian reform has freed peasant farming from the fetters of the *obtschina* of the common land. The *Flurzwang* and its consequences — simultaneous preparation of the soil, sowing, harvesting and other operations on the part of all holders — no longer limit peasant farming, which has come to develop more freely and to use fully all the available land and labour. This process of adjusting the newly settled peasants' farms to natural and agricultural factors is now in full swing but has of course not yet come to an end in its most important respects. Yet already at the time of the enquiry the following general conclusions could be made as to agriculture.

The three-field system, formerly universally prevalent, no longer dominates agriculture but begins to give place to other and more perfect systems. In the north western district the change is in the direction of a production of the raw materials of manufacture, flax being the most important crop and one which can be well marketed. Rschev is an example of a district in which the three-field is being exchanged for a six-field system, the following being the order of succession: (1) fallow land is manured;

(1) *a* = before the enquiry; *b* = at the time of the enquiry.

(2) rye crop followed by sowing of clover; (3) clover of the first year; (4) clover of the second year; (5) flax, and (6) oats. If the market for flax be good, flax also forms the sixth crop. This system reduces by half the extent of land which lies fallow under the three-field system, and moreover two divisions are planted with fodder grasses (clover) which, as is well known, enrich the soil with nitrogen. In other districts — as in Krasnoufimsk, Orël and to some extent in Jepifany — the improvement of agriculture is directed principally towards growing fodder grasses. A whole series of transitory systems, intervening between three-field and more-field farming, is to be met with everywhere. As yet they have not crystallized but they have broken away from the rigidity of three-field farming.

In the southern districts, remarkable for black earth, wheat growing outweighs all other forms of agriculture. The fertility of the soil makes manuring almost superfluous. The improvement in agriculture has here especially affected the technique of farming: fields are ploughed more often, stubble is turned, sowing is done by machinery, fallow land, whether black earth, virgin or previously cultivated soil, is brought under cultivation, and so forth. This leads too to retention of humidity in the soil, a matter which in the south is very important. New crops are also planted, as vetch, clover, lucerne grass. The three-field system thus loses ground of necessity. In the district of Bogoduchov, for example, under the influence of the model fields, the following four-field system has been introduced: (1) virgin, clean and manured fallow land sown with vetch as situation allows; (2) winter rye slowly replaced by winter wheat; (3) millet, buck-wheat, potatoes, beet-root or beans, that is plants requiring a medium amount of labour; (4) summer barley. The crops on the third of these divisions — the hoed crops — take up on an average 12 per cent. of the whole cultivated area, on *hutor* farms 18 per cent.

On farms on *nadial* land the transition to better agricultural systems is on the whole more marked than on those on lands of the Peasants' Agrarian Bank and the crown. That the better methods of distributing crops and employing the soil have already had good results, and that the yield of the newly settled peasants' farms has largely increased, appear from the following table, in which comparisons are made in the case of crops of six kinds for the years 1912 and 1913.

The Yields in the Chief Grain Crops and Potatoes.

		Average yield of deciatine in puds (1)	
		1912	1913
Rye	{ Nadiel farms	54.0	54.4
	{ Bank lands	66.5	65.6
	{ Lands of village communities. . .	50.1	51.2
	{ Lands of estate holders	58.9	63.6
Winter Wheat . .	{ Nadiel farms	54.4	82.6
	{ Bank lands	45.2	73.0
	{ Lands of village communities. . .	62.6	63.3
	{ Lands of estate holders	65.9	78.9
Summer Wheat .	{ Nadiel farms	49.8	55.6
	{ Bank lands	57.6	61.8
	{ Lands of village communities. . .	41.0	51.0
	{ Land of estate holders.	41.6	47.6
Oats	{ Nadiel farms	68.1	72.8
	{ Bank lands	77.6	75.6
	{ Lands of village communities. . .	55.9	59.9
	{ Lands of estate holders	60.1	69.3
Barley	{ Nadiel farms	65.9	66.1
	{ Bank lands	67.5	73.4
	{ Lands of village communities. . .	53.7	60.4
	{ Lands of estate holders	59.0	68.1
Potatoes	{ Nadiel farms	623.4	570.1
	{ Bank lands	551.4	440.9
	{ Lands of village communities. . .	451.8	421.0
	{ Lands of estate holders	451.8	570.6

That the average yield of the lands of the Land Bank and the crown is somewhat higher than that of the *nadiel* lands is to be explained by the fact that most of the investigated farms on lands of the former category lie in the black earth area, and are moreover of earlier foundation, while their soil has been less exhausted by tillage and farming than that of those on *nadiel* land. In general the differences in yield are not very important, for in the course of so short a period as three or four years the yielding capacity of the soil on the newly settled peasant farms could not be fundamentally altered. It is however a great gain if it can be established that within this short period the yielding capacity of the self-contained farms held in severalty has surpassed that of the land still held by the peasants in common.

CONCLUSION.

The conclusions as to which the enquiry into the unified peasants' farms has led are chiefly the following :

(1) More than three quarters of the investigated farms on *nadiel* land received their parcels of land (the site of the homestead being left out of account) in a single self-contained piece after the land settlement. On the other hand before the settlement more than three quarters of the farms had their land distributed in at least six strips, and generally in thirty, forty, or even a hundred.

(2) Half the peasant farmers have been allotted *nadiel* lands distant by hardly a verst from their homesteads. But before the land settlement three quarters of them held land more than a verst distant from their homesteads, and a third of them land five versts or more thence distant.

(3) The land settlement was most advantageous to the average peasants' farms, those to which small or medium-sized holdings attached. The extent of land provided for the newly settled *nadiel* farms was approximately equal to that locally normal, except in two districts where it was more extensive and in three where it was noticeably less so. In general *otroub* farmers are somewhat better provided with land than *houtor* farmers.

(4) Of the 7.7 per cent. of the farmers who had given up their farms on the newly settled land, 5.1 per cent. were those who, instead of the land they sold, had acquired a larger piece from the Peasants' Land Bank, the crown or private owners; others had emigrated to Siberia, and others had made the chief part of their income as employees or traders. Only 2.3 per cent. sold the land allotted to them without having, at the time of the enquiry, bought other land or provided for themselves by some trade.

(5) Of the newly settled farms 2.2 per cent. were subdivided among members of families, as the result of inheritance, after the settlement.

(6) More than 40 per cent. of the peasants have carried out on their lands improvements of which the average value is 53 roubles a farm (about 47 roubles on farms on *nadiel* lands and some 70 roubles on those on bank lands).

(7) After the land settlement the total value of the buildings and the possessions on the newly formed peasants' farms rose by 27.7 per cent.

(8) About a fourth of the farmers were helped by the crown after the settlement with money. Of them 2.3 per cent. had the money granted to them without obligation to repay it. The average amount of the grant was 105 roubles a farm, or 4.1 per cent. of the average cost of removing buildings to new sites and carrying out improvements.

(9) The number of the peasants who became members of co-operative unions was, after the settlement, more than doubled among the *otroub* farmers and quadrupled among the *houtor* farmers.

(10) The number of farms on which fodder was grown and a succession of crops maintained over several years was quadrupled after the land settlement.

(11) The harvest yield in 1912 and 1913 was in the overwhelming majority of cases higher on the newly settled farms than on those still in common ownership, and still burdened with the system by which a holding was made up of scattered parcels. Not infrequently it was higher on the newly settled farms than on the estates of private owners.

We repeat that when these results are considered it should always be borne in mind that the newly formed peasants' self-contained farms, enjoying conditions created by the land settlement, had at the time of the enquiry existed only for three or four years. Their reorganization, the re-modelling of all farming on them, had only just begun; and it had been necessary for the farmers to spend much time, labour and money in order to make them fit for agricultural operations as quickly as possible. As regards production the first years were of course the least fruitful: they were the least favourable period in the existence of the farms. And although agronomic enterprise on the part of both the government and the zemstvos helped the peasants in their farming, both with advice and more practically, the peasants nevertheless, since help of this kind became available comparatively late, depended most on themselves and on their own experience and initiative. Final conclusions could not therefore be made as to the position of the farms: the enquiry could only indicate their possible developments and establish their tendencies. For these ends the available material was sufficiently enlightening. It showed that almost all the investigated farms have happily survived the critical period of reorganization and that their economic position points distinctly to improved and more profitable farming. An unencumbered title to the land, the emancipation of labour from all local and communal burdens, the concentration of all force and all knowledge on the better employment of a holding granted "for eternity", the consciousness that trouble spent on the soil will not be lost — all this has had a marvellous influence on the whole course of farming as well as on the holders' daily lives. Among individual peasants fixed and strengthening habits of temperance are to be observed, habits which were introduced on that memorable day on which by the Tsar's will they were proclaimed as compulsory for the whole nation.

URUGUAY.

THE REFORM OF THE LAND TAX FROM THE POINT OF VIEW OF AGRICULTURE AND BREEDING.

SOURCES :

- LEY DE CONTRIBUCIÓN INMOBILIAR PARA LOS DEPARTAMENTOS DEL LITORAL E INTERIOR (*Law as to the Contribution of Real Estate in the Departments of the Coast and the Interior*) Diario Oficial, No. 3018, 18 January 1916.
- RECARGO EN LA CONTRIBUCIÓN INMOBILIARIA A LOS PROPIETARIOS NO DOMICILIADOS EN EL PAÍS (*Law Increasing the Contribution of Real Estate for Proprietors not domiciled within the Country*) Diario Oficial, No 3029, 31 January 1916.
- DECRETO REGLAMENTARIO DE LA LEY QUE ANTECEDE (*Decree giving a ruling as to the Preceding Law*) Diario Oficial, No. 3029, 31 January 1916.
- BOLETIN DEL MINISTERIO DE HACIENDA (*Bulletin of the Minister of Finance*) 2nd year, Nos. 10, 11 and 12, 20 October, 20 November and 20 December 1915; 3rd year, Nos. 1, 2 and 3, 20 January, 20 February and 20 March 1916.

A certain number of legislative measures bearing on finance have recently been promulgated by the government of the eastern republic of Uruguay. They are of interest, some of them directly and some indirectly, to rural landed property and agriculture; and therefore they deserve detailed examination in this Review, the more so because they have given rise to long discussions in the general press and technical publications and in Parliament. Moreover they tend, while they give a national basis to the land tax, to develop the value of rural landed property, for they devote a part of the new revenue arising from them to the making and the multiplication of routes of communication in the interior of the country.

They should be regarded therefore not only as important modifications of the national fiscal arrangements, but also as an attempt to distribute more equitably the tax which burdens landed property, while aiming at creating new revenues which will favour the appreciation of lands and proportionately increase the agriculturist's sources of profits.

The measures which we will analyse individually are: (1) the law of 14 January 1916 as to the contribution to the revenue of real estate in the departments of the coast and the interior; (2) the law of the same date which increases the contribution of real estate and falls on landowners who are not domiciled within the country; and (3) the decree of 27 January which regu-

lates the public enforcement of the previous laws. The two latter measures complete the regime instituted by the first.

In view of the importance of the breeding of live stock, and of industries thence derivative, to Uruguayan economy, we will devote a paragraph of this short study to the reaction of the new financial arrangements on this form of activity, and will therefore briefly examine the present state of breeding in relation to fiscal burdens.

§ I. THE NEW LAW AS TO THE CONTRIBUTION OF REAL ESTATE.

a) 1st *Chief Provisions.*

Article 1 of the law of 14 January 1916 institutes an annual tax on privately owned real estate, whatever be the form of ownership, which is situated in any territory of the republic except the department of Montevideo. This tax is one of 4 per thousand on the value of rural lands, apart from that of any improvements which they may have received, if their estimated value do not exceed 2500 pesos (1) and if they constitute the only rural property of their owner. On lands of which the estimated value exceeds 2500 pesos the tax is of $4\frac{1}{2}$ per thousand (2). Within urban and suburban districts it is of $6\frac{1}{2}$ per thousand, on the combined valued of land and improvements.

According to article 3 owners of fields within rural districts, of which the area does not exceed 50 hectares (3) and of which at least 60 per cent. is under cultivation or has been reforested, will be taxed on only half the taxable value of these lands as determined by the valuation. When their total extent exceeds 50 hectares, only that portion of them which is destined for agriculture or forestation will benefit by this preference.

Of the revenue yielded by the tax of $6\frac{1}{2}$ per thousand on urban and suburban property 1 per thousand will accrue to the economic administrative commissions of each department and $5\frac{1}{2}$ per thousand to the general revenue of the country. The product of the $4\frac{1}{2}$ per thousand tax on rural property will be divided as follows: (a) 1 per thousand to the economic administrative commissions of each department; (b) $\frac{1}{2}$ per thousand to the permanent fund for routes of communication; and (c) 3 per thousand to the general revenue of the State.

Article 6 establishes that for the two financial years 1915-1916 and 1916-1917 the tax on rural real estate will be fixed by the general directing body of land valuation and according to the estimated value determined by the new census of rural landed property, less 20 per cent. "The general direc-

(1) 1 peso = about 4s 3d at par.

(2) This preferential treatment of small property was not provided by the original scheme, which fixed the land tax at 5 per thousand without making distinctions.

(3) 1 hectare = 2.47 acres.

tors of valuation", runs the text of this article, "will take into account among other things, in fixing the value of rural property, the market price of the lands and the income they probably yield, the latter being taken to represent at least 4 per cent. of the estimated value". Article 23, which refers to appeals, recognizes a right in every proprietor, who believes himself to be wronged by the quota of the tax incident on his real estate, to demand a new valuation from the competent authority. If he do not accept this second valuation the dispute will be brought before a commission of experts who will comprise, as well as members of the local municipal administration and the administrations of finance and the cadaster, four landowners domiciled in the district and chosen by the executive authority from a list of the principal tax payers. The latter will be drawn up by the departmental financial authority. This commission will, in examining the values estimated by the census, take into account the selling price of neighbouring rural properties resembling those under consideration, making deductions for improvements, and also the rent of the real estate in question and of others in the district. Where such rent exists the value as estimated shall be considered as a capital bearing interest at a rate between 3 and 4 per cent.: that is to say that if a property, or adjacent lands of approximately the same quality, be let at a rent of \$ 1.50 the hectare the estimated value cannot exceed \$ 50 nor be less than \$ 37.50.

The parties concerned, that is to say the departmental agent of the administration of finance and the landowner, can appeal against these decisions of the local commission of experts to the central commission of experts constituted at Montevideo and comprising the general director of direct taxation, the president of the rural association of Uruguay, and a rural landowner of the department whence the appeal arises who will be nominated by the executive power. The decision of the central commission will be final.

Properties of which the value does not exceed 100 pesos are, among other real estate, exempted from payment of the tax, as are properties belonging to rural societies and permanently assigned to agricultural exhibitions and competitions, and 50 per cent. of reforestation areas depending on agricultural and breeding establishments.

We leave on one side all the provisions as to urban and suburban real estate, to examine which would be outside the scope of this article.

The law will be in force, in the form which has been indicated, for two years.

b) The Basis of the Law and the Census of Property.

As can be seen from the brief summary which we have given of the law's chief provisions, it is inspired by a principle which is already applied in other countries.

The Uruguayan Minister of Finances recalled, in the explanatory note which he addressed on 26 November to the president of the financial commission of the Chamber of Representatives, for the better definition of

the scheme then being studied, that he aimed at superseding the old method of taxing land according to rented value by that already applied in Great Britain and Germany for the benefit of the State, and in Australia for the benefit of the municipalities, the method namely which was based on capital or market values.

The system hitherto in force in Uruguay was that of taxation by districts. But the minister in this note observed that "the rudimentary and arbitrary regulation by districts could exist only while there were no other means of arriving at a truly equal distribution of the tax; the method of taxing by districts interpreted in truth a principle in direct contradiction to the modern tendency of taxation, of which the incidence should be proportionate to the capacity to pay". To support his thesis the minister gave the following example. If in the same district there were fields worth respectively \$ 100, \$ 120, \$ 150, \$ 200 and \$ 250 the hectare, their average value would be \$ 164, on which taxable value the 6 $\frac{1}{2}$ per thousand tax would be imposed. But thus, in relation to the true value of his property, each proprietor would pay at an inverse ratio to his capacity to pay: the owners of the first field 10.66 per thousand, the owner of the second 8.80, the owner of the third 7.10, the owner of the fourth 5.33, and the owner of the fifth 4.30

To reach the present law a new census of rural property was first necessary, until there should exist a systematically drawn-up cadaster, the preparation of which would take long. The new census has been completed with remarkable celerity in quite recent years.

Those in charge of the valuation took into account, in determining the value of estates, data in the registry of sales, and in most cases they were able to obtain plans of the real estates and their dimensions from surveyors employed by private persons. Thus it was possible to prepare a sufficiently true and exact classification of rural properties.

The necessary basis therefore existed for applying to rural real estate the method of taxation already in force in the case of urban real estate, namely the method accordant with their precise and individual values; and the figures of the new census, which allow lands to be burdened according to the effective capital they represent, support the whole edifice of the reform we are considering.

In adopting the capital value of landed property as the basis of the tax, the government of Uruguay took into account conditions which are peculiar to all new countries in the full period of their growth, when their natural resources are still far from being developed or yielding their maximum return. The value of Uruguayan land may have fallen slightly in 1914-1915, owing to the extensive reaction from events in Europe; but it remains a value of which the increase is certain in normal times, and which at present has in no way reached the highest point possible to it.

The following table shows the progress in the value of the lands of the republic during the last ten years:

TABLE I. — *Increase in the Value of Landed Property.*

Year	Value of Landed Property
1904-1905	\$ 195,706,770
1905-1906	391,413,540
1906-1907	471,771,905
1907-1908	552,130,270
1908-1909	632,488,635
1909-1910	712,847,000
1913-1914	1,069,270,500
1914-1915	855,416,400

It is evident that in face of such an increase in the value of property it would be foolish to fix the tax according to the returns received by a landowner who does not cultivate his fields himself, but who lets them in order that they may be made productive.

c) The Product of the Tax and its Application.

The agrarian policy of the government of Uruguay aims steadily at the development of agriculture and breeding, the country's chief resources. We will not examine in detail the many measures which are proof of this constant preoccupation, but will merely note in passing that it devotes one million pesos a year to guaranteeing the railways which are of interest to rural districts, and has devoted about a million more to rural roads and bridges, and that it spends considerable sums annually on the sanitary inspection of animals, agricultural defence and such objects. In fact all forms of agricultural activity are encouraged and scientifically developed in the public interest of the country.

This policy is from the strictly fiscal point of view the only logical one, as is clear when the receipts of the treasury from rural property and urban property, respectively, are considered. The purely conventional taxable value of rural property, which was respected under the system of districts, was \$370,593,445 and this at 6 $\frac{1}{2}$ per thousand yielded \$2,408,857, as against \$406,555 which was the effective value of urban and suburban property and yielded a tax of \$321,143. But the new census makes the difference much more considerable for it raises the taxable value (that is the amount of the capital value less 20 per cent.) of rural property to \$712,000,000, which sum gives, when it is rendered liable to the 4 $\frac{1}{2}$ per thousand tax, an annual yield of \$3,204,000, that is ten times the sum furnished by urban property which subsists unchanged.

The importance to the government of a progressive increase in the capital formed by rural property is thus seen, and the fact that $\frac{1}{2}$ per thousand out of the 4 $\frac{1}{2}$ per thousand tax will be paid into a special fund for roads and communications will not fail to contribute to this importance. The ne-

cessity of making new and improving old roads cannot be questioned, for all the agricultural congresses untiringly insist on this point. For want of fixed resources for this end the public authorities have not hitherto been able to give the needed continuity to their roadmaking enterprise. The topographical conditions of Uruguay are very unfavourable to it, owing to the considerable number of watercourses which roads must cross and which must increase the costs of construction and maintenance. When a system of roads and paths has been established in all districts the transport of products will be facilitated and rendered infinitely less costly, and the value of the lands therefore increased. Under the system of districts the eighteen departments within the scope of the new law, which have an area of 17,064,865 hectares of rural land, disposed of only \$ 370,594 for bridges and roads, the employment of this sum being regulated by administrative economic commissions. Under the new system the sum accruing to these commissions will be about \$ 700,000, partly destined for the improvement of local roads. In addition about \$ 350,000 a year will, as has been said, form the nucleus of a special permanent fund for bridges and roads, and this sum will increase proportionately with the increasing value of the lands.

§ 2. BREEDING AND THE TAX ON REAL ESTATE.

Before becoming law the scheme for reforming the land tax gave rise to the most lively discussion and was the object of many criticisms, especially on the part of stock breeders. These considered that the rate at which it was proposed that they should pay aggravated their burden, although breeding, the "mother industry" of the country, was already heavily taxed.

The government did not fail to examine the objections submitted by the stock breeders, who contribute very largely to the wealth of the country, and replied to them by giving precise data which allowed their participation in public burdens to be exactly estimated.

On referring to the table giving the rise in the value of lands, it is seen that in ten years the capital represented by land has increased by 600,000,000 pesos. The 6 $\frac{1}{2}$ per thousand contribution of real estate did not follow the growth in the value of real estate, and was still calculated on \$ 423,000,000 instead of on \$ 1,069,270,500 in 1913, and on a little less than \$ 900,000,000 in 1915. Thus the land tax represented a total annual burden of about \$ 2,730,000.

The contribution of breeding to public and municipal revenue is represented by the export duty (1), as well as the land tax : namely by the port

(1) The products of the freezing industry are exempted in order to encourage its development.

duty of 1 per cent., the charge of $1\frac{1}{2}$ per thousand for the patent to circulate, the tax of 25 ten-thousandths a kilogramme on live stock intended for the freezing chambers, and the statistical tax. Altogether the fiscal burdens on breeding were equivalent in 1914-1915 to 4.62 per thousand of the value of rural lands, as against 5.21 per thousand in 1911-1912 and 5.06 per thousand in 1909-1910.

The following figures show the total amount of the fiscal revenue derived from breeding :

TABLE II. — *Fiscal Burdens on Stock-Breeding.*

Year	Total Product of the Various Taxes and Duties
1909-1910	\$ 3,606,677
1910-1911	3,270,857
1911-1912	4,459,685
1912-1913	4,319,533
1913-1914	3,920,622
1914-1915	3,955,387

Thus taxes on breeding do not furnish as much as four million pesos a year, in spite of the increase in value of landed property and the fact that the price of live stock has been multiplied by five in the last twenty years.

The following table shows the variations in the price of live stock from 1911 to 1915, according to the export figures.

TABLE III.

Variations in the Price of Live Stock Exported in one Month, from 1911 to 1915.

Kind of Live Stock	September 1911		September 1912		September 1913		September 1914		September 1915	
	Heads of Live Stock	Average Value of one Animal	Heads of Live Stock	Average Value of one Animal	Heads of Live Stock	Average Value of one Animal	Heads of Live Stock	Average Value of one Animal	Heads of Live Stock	Average Value of one Animal
		\$		\$		\$		\$		\$
Bullocks	6,951	26.61	10,105	26.34	11,933	45.77	13,100	57.68	37,668	64.27
Oxen	1,177	29.59	1,412	33.85	1,014	53.46	838	65.58	2,386	66.77
Cows	5,968	18.89	7,208	23.30	2,778	38.44	7,344	45.84	8,325	46.72
Calves	2,924	7.11	1,370	13.49	977	21.64	1,851	19.33	1,838	20.45

As regards the development of the live stock industry, the data which we give below, and which refer to the export of the chief products of live

stock — salted and dried ox-skins, dried sheepskins, wool, frozen meat and preserved meat (*tasajo*) — allow its stages to be followed.

TABLE IV. — *Annual Value of Exported Products of Live Stock.*

Official Values (approximate)

1892	\$ 25,951,819	1905	\$ 33,437,888
1893	27,681,373	1906	30,805,061
1894	33,479,511	1907	34,912,872
1895	32,543,644	1908	40,296,397
1896	30,403,084	1909	45,103,422
1897	29,319,573	1910	43,699,798
1898	30,276,916	1911	46,015,834
1899	36,574,164		
1900	29,410,862		(Effective values)
1901	27,762,782	1912	53,041,855
1902	33,660,300	1913	69,771,530
1903	37,369,402	1914	51,208,955
1904	38,484,817	1915 (January-Aug.)	41,896,155

If we take into account only these values and not the circumstances, alleged by the breeders, that the considerable mortality among live stock last year has made their situation particularly difficult, we see that the value of the land has risen, that that of production has increased, that the frozen meat industry — which has a direct relation to breeding — has developed importantly, and that the total contribution of breeders to the State has diminished, absolutely and relatively.

As the government has itself observed, it would profit by a suppression of all secondary taxes and dues and the retention of only an "industrial patent", subsisting side by side with the land tax, as in the Argentine Republic where such patent amounts to 2 per thousand of the value of lands. For the moment the system in force has not however been changed in any way: products are taxed on leaving the country on the presumption that persons who have realized an industrial profit will thus contribute rather than the breeders.

Since the law of 14 January 1916 was voted after a simple debate, the supposition is that the breeders have recognized its advantage, as shown by the arguments of the government supported by official statistics.

§ 3. THE LAND TAX AND LANDOWNERS NOT RESIDENT IN THE COUNTRY.

On 14 January 1916 the Parliament of Uruguay voted a law which completes that on the contribution of real estate. As therein provided, persons and corporations who are not domiciled in the country, that is whose business has its headquarters abroad, will pay double the tax im-

posed by the law which we have examined. The same liability attaches to landowners who, while they are domiciled in the territory of the republic, have been outside it for more than a year when the tax becomes payable. Exemption from this additional liability is given to foreign commercial or industrial companies who are established in the country by a State grant, to the properties on which they conduct the industry or trade which is the object of the grant, and to certain properties in the coast watering-places of the country.

The landowner affected by article 1 of this law, who does not make the stipulated payment, will be liable to a fine of 20 per cent. of the amount of the tax on his real estate, including the additional tax.

Moreover by a clause which is proof of the desire to strike at the owner rather than the lessee, the law establishes that the additional tax is payable by the landlord, even if the lease stipulate that the land tax is to fall on the lessee.

As a consequence of the provisions we have indicated, the decree regulating the law establishes that deposit and discount banks, credit banks and institutions, and societies and individuals who administer real estate belonging to the persons included by article 1 of the law, must in the course of February of each year notify such fact to the directors of direct taxation in the capital and the administration of revenues in the departments, giving all required information as to the name, quality and domicile of the proprietors they represent. The administration will thus be able to prepare a register of absentee proprietors.

The Minister of Finances has made a point of stating exactly, on 11 March 1916, the principle of the law, which is "to tax the absentee landlord, owing to the economic evil caused to a country by a proprietor letting his real estate to others who develop it with their own capital".

The government wished especially to exempt from this provision the large Liebig establishments, on the ground that the capital employed on this enterprise, which was at first foreign, has been so invested in Uruguay that there has been an incorporation of positive wealth, of a factor of production, and of an element which so raises the value of the products of breeding that it has given birth to a centre of industrial life, and caused a numerous labouring population to be established on the country's soil.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL, IN VARIOUS COUNTRIES.

ITALY.

1. RECENT MEASURES AS TO AGRICULTURAL CONTRACTS. — *Gazzetta Ufficiale del Regno d'Italia*, No. 261, Rome, 7 November 1916.

By a decree of the Lieutenant General of the kingdom, dated 2 November 1916, No. 1480, important steps have been taken as to agricultural contracts, always with the idea of helping agriculturists to overcome the difficulties of the present time. The principal provisions are as follows:

Agricultural contracts in writing or by word of mouth, whether involving some system of partnership or a fixed wage, are not to have force until the year after that in which peace is made. The Arbitration Commission of *mandamento*, of which there is question in Article 11 of the decree of 30 May 1916, No. 645 (1), can in every case grant, at the request of the cultivator, the wage-earner or the small farmer and on recognized and serious grounds, that the contract cease to bind at the end of the current agricultural year.

The widow, children, parents or other heirs of the cultivator or small farmer who dies in the war, or as a consequence of the war, can, if they be part of his family employed in cultivating his holding, apply to the Arbitration Commission of *mandamento* for the delay of the contract as stated above, if they show proof that they are able to execute the clauses of such contract.

In contracts involving the principle of partnership, where this implies only a sharing of produce between the landowner and the cultivator, the former or his manager, or the cultivator or his representatives, may in the cases which have been mentioned bring onto the holding extra labourers, corresponding in number to those members of the cultivator's family who are with the colours or have been killed or disabled in the war, and the resultant expense shall be shared in the proportion fixed for the sharing of produce.

In the case of small farmers' contracts drawn up before 24 May 1915, if the Arbitration Commission of *mandamento* recognize, at the instance of the lessee, that the insufficient cultivation of the leasehold, by reason

(1) See *International Review of Agricultural Economics*, October 1916, page. 119.

of the call to the colours of members of the lessee's family, has placed it economically in a difficult condition, the commission may declare a reduction of rent for the current year and for the succeeding years during which the delay continues, in a proportion not exceeding one half of such rent for each man called to the colours.

In the case of contracts of any kind imposing fixed wages, the Arbitration Commission may exceptionally, if the parties have not come to an agreement, grant at the instance of the labourer, taking into account the conditions of labour and production, an increase of wages.

The last part of the decree contains complementary provisions for the Arbitration Commissions of *mandamento*, and especially for the Provincial Commissions of Agriculture formed by Article 8 of the decree of 30 May 1916, No. 645. Persons representing economic institutions (agricultural co-operative societies), or technical institutions (agricultural committees), or local institutions, are summoned to be members of these commissions of which the task has been enlarged. They are charged :

a) To make a levy of the labour available for agriculture in the different zones of the province, using the authority of communes, and also that of the labour bureaux where these exist, and of the workmen's organizations and other social institutions publicly recognized or subsidized; and to estimate the adequacy or inadequacy of the supply of labour to the needs of local farms, organizing accordingly its displacement from one zone to another.

b) To make a levy of the agricultural machines available in the province and facilitate the greatest possible use of them.

c) To keep count of variations in the area devoted to each crop within the province, to notify the Ministry of Agriculture of the causes for changes, and make suggestions with a view to using uncultivated land to the greatest possible extent,

d) To regulate and facilitate, by means of agreements with Commissions of Agriculture in adjacent provinces, migrations from one province to another, according to the supply of labour available and the needs of agriculture.

The officials of communes, the inspectors of industry and labour, the holders of the peripatetic chairs of agriculture, and, generally, all officials depending on the Ministry of Agriculture, and all those nominated to legally recognized agricultural institutions and to social institutions subsidized by public authority, are bound to give their aid, when asked, to these Provincial Commissions.

* * *

2. RULES FOR GRANTING THE TEMPORARY USE OF AGRICULTURAL MACHINES.

Among measures favouring agriculturists lately adopted by the Italian government, one which deserves notice is that allowing the Minister

of Agriculture (Decree of 6 June 1915, No. 826) to make large purchases of agricultural motors and machines of which agriculturists and rural organizations will be allowed the temporary use. Machines thus bought will be entrusted to the government depots which are managed as follows :

In every depot of agricultural machines and tools established by the Ministry of Agriculture there is, first, a manager who is helped by a secretary and responsible for the care of the machines and the dissemination of their use according to stated rules.

By satisfying the demands of the agricultural schools, the committees, the associations, and the private agriculturists and machine-makers, each depot meets the needs of rural economy in a fixed district assigned to it by the ministry.

The manager himself keeps a register of all the machines, implements and tools in his depot, numbering and signing its pages himself. Whenever a machine or tool is received he enters its description in the register, sends to the ministry a receipt and certificate of acceptance, and notifies all the local agricultural schools, committees and communes, which are requested to notify the public.

Whoever wishes to make trial of the machines and implements in the depot must apply in writing to the manager, stating which machine or tool he wants, the place in which it will be used and the time for which he intends to employ it.

The manager may exact from any applicant that he give as surety for the price at which the machine is inventoried a person known to be solvent, or deposit a sum equal to such price. Thus it becomes possible to cover the loss of a lent machine, or the cost of necessary repairs, at the expense of the applicant. The schools and agricultural committees are exempt from obligation to give a guarantee.

When a manager receives applications from agricultural schools, committees or individuals outside the district assigned to his depot, he must send them to the ministry which reserves the right to consider and decide on them.

Applications are granted in the following order : first those of the schools, then those of the committees and of associations existing in the general interest of agriculture, then those of members of the committees, and finally those of private agriculturists and of machine-makers who wish to study and copy the depot's machines in their workshops.

Applications of the same kind are dealt with in order of priority. When there are a number of applications for the same machine the manager must give the preference to whoever has not yet made trial of it.

Without special leave from the ministry machines must not be granted for more than fifteen days or more than twice to the same individual. But they may be granted more frequently and for a longer time to agricultural committees and schools.

The grantee is responsible from the moment at which he signs a receipt for the machine. All costs of transport and maintenance and of ordinary and other repairs are chargeable to him.

For every day for which the return of the machine is delayed beyond the term of the grant, the grantee must pay a fine as compensation and interest. Its amount will be previously determined by the manager of the depot according to the importance and value of the machine.

When the machine is returned a report must be made, noting the condition in which it is brought back to the depot.

Persons who have used the machines must, when returning them, present a detailed report on results obtained, costs incurred, and the conditions of weather and place in which trial of them has been made. In this report all results must be carefully compared with those which would have been obtained had ordinary expedients been used and customary local practices followed. In making calculations allowance should be made for interest on the sum employed to purchase the machine or implement and for amortization. The manager must refuse to grant further machines to persons who have neglected to obey this provision which is of evident utility.

Finally, in the first month of every year the manager must present to the ministry a complete report of the trials of the machines and implements in his depot during the preceding year. In forwarding this report he must suggest the replacement of machines which no longer meet local needs, either because they have undergone depreciation or because agricultural mechanics have progressed. At the same time he must communicate any desires for new machines, of more recent or more perfect pattern, which have been expressed to him.

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3. THE FOUNDATION OF AN "ISTITUTO AUTONOMO DI BONIFICAMENTO AGRARIO E DI COLONIZZAZIONE PER LA SARDEGNA". — *Gazzetta Ufficiale del Regno d'Italia*, No. 249, Rome, 23 October 1916.

By a decree of the General Lieutenancy of the kingdom, No. 1316, dated 3 September 1916, there has been founded at Sauluri (Cagliari) an autonomous institute of agricultural beneficence and of colonization for Sardinia, and it has received for fifty years the use of the experimental estate, formed on 25 November 1915, which comprises the large property called "Stabilimento Vittorio Emanuele".

This institute is obliged gradually to provide for works of agricultural benefit, land improvement and colonization, and for the division of its land into farms which will be granted to cultivators; all according to plans approved by the Ministry of Agriculture.

For the purpose of these tasks the institute may receive preferential loans, and also advances and loans from institutions of land or agricultural credit and savings banks.

It is further charged to promote the foundation of an agricultural bank and agricultural union, chiefly in the interest of the cultivators. It may also promote such co-operative consumers', labourers' and producers' associations as co-operative dairies, oilmills, cellars etc.

The institute is ruled by an administrative council composed of two representatives of the Ministry of Agriculture, two of the Ministry of Public Works and one of the Ministry of Finances — all of whom are nominated by royal decree —, and of a technical manager.

The administrative council manages the property of the institute, nominates its employees, and sees that it pursues the objects which have been cited. The councillors hold office for three years and may be re-elected. They nominate a chairman from among themselves.

The technical manager is responsible for the work of the institute, already defined: he prescribes and inspects systems of agriculture and agricultural works, and provides for the execution of the resolutions of the administrative council.

The institute converts the returns from its property into its own income, which it uses to extinguish the loans it contracts and to pay the costs of administration and agriculture and of the maintenance of works of beneficence, as well as to meet every other necessary expense and to form a fund intended for later agricultural improvements.

The Ministry of Agriculture acts, through an especial organization, as superintendent and guardian of the institute and of the agricultural enterprise accessory to it.

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4. NATIONAL CHARITY FOR THE ORPHANS OF PEASANTS KILLED IN THE WAR

Constitution approved by a decree of the General Lieutenancy of the kingdom, 6 August 1916, No. 1025. *Gazzetta Ufficiale del Regno d'Italia*, No. 201, Rome, 20 August 1916.

We have already alluded (1) to the great movement which has for some time been spreading in Italy in favour of helping the orphans of peasants killed in the war, and also the active propaganda of the *Istituto nazionale della mutualità agraria* for the foundation of agricultural colonies especially designed for the reception of these orphans and their education in their fathers' callings. In order better to direct and co-ordinate this movement there has recently been formed in Rome the *Opera nazionale per gli orfani dei contadini morti in guerra e per i figli dei contadini resi in guerra permanentemente inabili al lavoro*, a national charity for the orphans of peasants killed in the war and for the children of peasants permanently disabled by the war, which acquired status as a corporation having a moral aim by a decree dated 6 August 1916, No. 1025. Its objects are:

a) to see that aid is given to the orphans of peasants by special local protective agencies (2) or other institutions;

(1) See *International Review of Agricultural Economics*, March 1916.

(2) See in this connection an interesting pamphlet by Dr. Mario Casalini, general secretary of the charity, "L'Assistenza agli orfani dei contadini. I patronati, la loro organizzazione il loro funzionamento". Chiusi, typ. Cerere, 1916.

b) to promote and favour the formation of protective agencies and *agricultural colonies* in the various districts of Italy, with a view to receiving such of these orphans and children of peasants as cannot obtain either help or a fit technical education within their families ;

c) to co-ordinate the activity of local protective agencies, agricultural agencies, and other institutions having analogous aims ;

d) to promote one or more institutions capable of being connected with the existing institutions of agricultural credit, in order to help the orphans to buy small rural holdings which they will themselves farm when they have reached majority.

Wherever there are already protective agencies or agricultural colonies, legally constituted and recognized by the charity, the duty of helping the peasants' children generally falls on them. Where there are none the charity renders especial aid to these orphans by means of delegates.

When it has accomplished its duty to the orphans of peasants killed in the war it will extend its benefits to other peasants' orphans. To compass its aims it disposes of *a)* the eventual income of its property ; *b)* the annual subscriptions of ordinary members and subscribing societies ; *c)* the subscriptions of honorary members ; *d)* the donations, legacies, temporary donations and extraordinary income which will eventually accrue to it. Its members belong to the following categories : *a)* members giving a donation, in other words all co-operative and mutual aid institutions which contribute more than 50 liras a year ; *b)* ordinary members, those subscribing 10 liras a year ; *c)* benefactory societies, namely every institution, ministry, province, commune, savings bank, chamber of commerce, organization or individual giving an annual subsidy of at least 100 liras ; *d)* perpetual honorary members, namely institutions which make one contribution of at least 100 liras.

The capital paid by the honorary members is inalienable, and only its income can be used to constitute or complete maintenance bursaries for the orphans.

There are ordinary and extraordinary general assemblies of members. The former meets once a year to discuss and approve the report of the charity's moral and technical activity and to choose the general council. Its resolutions are fully valid if at least a tenth of the regularly inscribed members be present at it, or one hour after the time indicated in the invitation to the meeting for its opening, whatever number of members be present. When there is question of modifying the by-laws one fifth of the members are needed to constitute a quorum. Resolutions are passed by an absolute majority.

This charity is managed by a general council of twenty-nine members who elect from among themselves a president, three vice-presidents, and an executive committee consisting of the president, the vice-president of oldest standing, five ordinary members of the council and a secretary. The members of the council and the executive committee hold office for three years.

The council meets regularly twice a year. It administers the charity's

property, and approves reports for the general meeting and balance-sheets drawn up by the executive committee. The latter administers the charity within the limits of its budget, and prepares and submits to the general council budgets and balance-sheets, the report on the moral and technical activity of the charity, etc :

If the general meeting should decide to dissolve the charity its property will pass to the National Bank of Thrift.

Propaganda in favour of the formation of the agricultural colonies and protective agencies, already mentioned, has met with excellent results : there are already several agricultural colonies ; and numerous protective agencies for the assistance of peasants' orphans have been constituted, especially by the initiative of provinces, each of which will have its own agency. There is in Italy a typical example of institutions of this kind, the *Opera per l'assistenza e la educazione professionale degli orfani dei lavoratori della terra*, a charity for aiding and technically educating the orphans of agricultural labourers in the province of Bologna.

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5. AN IMPORTANT SCHEME FOR THE FOUNDATION OF A PROVINCIAL INSTITUTION OF SOCIAL AID. Communicated by the provincial deputation of Bergamo on 7 April 1916.

At a recent meeting of the provincial council of Bergamo the foundation was proposed of a large institution of social aid which should be formed on the initiative of the provincial deputation, and with the co-operation of all public and private institutions " interested in and responsible for the protection of public health and the economic and social welfare of the working classes ". The proposed institution would act through two sections — a hygienic and sanitary and a social and economic section. It would be the task of the latter :

I. *Statistics* : a) To collect, collate and publish information as to labour — chiefly in regard to its organization and remuneration in Italy and in foreign countries, preferably those to which there was emigration ; and as to the relations of labour and capital ; the number and conditions of labourers and the conditions of unemployment ; strikes and their causes and results ; and the number, causes and consequences of accidents to workmen ; b) To discover the development of the retrogression and the technical and economic conditions of social institutions in the province, as well as their influence on the welfare of the working classes and on the progress of agriculture.

II. *Legislation* : c) To disseminate among the people a knowledge of social legislation, and to undertake all the studies and researches in matters of legislation which the government, the higher council of labour or other institutions should require.

III. *Inspectorate* : d) To see that all social and labour legislation was applied, and denounce those contravening it to the competent authorities.

IV. *Conciliation* : e) To settle amicably disputes between employers and workmen and between the latter and contractors, and in general all disputes as to agreements relative to labour contracts.

V. *Placing of labour* : f) To place workmen and wage-earners, receiving offers of and demands for work, bringing workmen and employers together, and facilitating the conclusion of contracts.

VI. *Thrift, mutual aid, co-operation* : g) To contribute generally to a large development of saving, thrift, mutual aid and co-operation in the working classes, and to render the organization of mutual and co-operative societies more efficient by co-ordinating them in federal institutions; and especially ; h) To induce working people, by means of an active propaganda and increased assistance, to join individually or collectively the *Cassa nazionale di previdenza per l'invalidità e la vecchiaia degli operai*, a national thrift bank providing against the disablement and old age of working people, and other government institutions of thrift (*Cassa nazionale di assicurazione per gl'infortuni degli operai sul lavoro*, National Fund for Insurance against the Accidents of Labour); i) To popularize rules for the constitution and the successful working of co-operative associations of credit, labour, production, consumption etc.; thrift and mutual societies in their different forms; societies for mutual insurance against mortality among live stock, damage done by fire or hail and the accidents of labour; mutual aid societies; mutual educational and forestry societies, etc.; as well as all institutions aiming at the moral and material improvement of the masses; and to help the establishment of such societies on the most scientific and practical models; j) To help and to superintend all the economic institutions by means of frequent inspections, inducing them to keep regular accounts, and directing co-operative and mutual organization towards a uniform system of book-keeping which would produce scientific and uniform records fitted to be the material of statistical labour.

This section proposes to reach its aim : a) By propaganda, oral and written; assistance given to the social and economic institutions in the matter of technique and book-keeping; legal advice and aid in the matter of giving opinions, solving problems, arranging reconciliations, etc. (*peripatetic chair of thrift and mutuality*); b) By competitions, exhibitions or other forms of encouragement to the better economic institutions, and by propaganda and social aid.

There would be assigned to the maintenance of the institution : a) an annual sum allotted by the province and provided by a special fund; b) the annual contributions or subsidies of public or private institutions (ministries, national bank of thrift, savings bank, communes, *agricultural societies*, etc.); c) the donations and legacies which might accrue; d) various income.

To take charge of the administration and working of the institution there would be a council of eleven members — six of them chosen by the provincial council and five by a meeting of the representatives of the soci-

eties which had contributed to the institute —, an executive committee, and a committee of official arbitrators having three effective members and two vice-members.

UNITED STATES.

OVERTIME IN THE FRUIT AND VEGETABLE CANNING AND PACKING INDUSTRY OF OREGON. — *Monthly Review of the U. S. Bureau of Labor Statistics*, Washington, July 1915.

The Oregon Industrial Welfare Commission published under date of 26 May 1914 an order providing for the issue of emergency overtime permits to fruit and vegetable canning and packing establishments. Such overtime is not to be permitted for more than six calendar weeks, and the whole working time, including overtime, is not to exceed sixty hours in any calendar week nor ten hours in any day. The following is the order in full.

“TAKE NOTICE: That pursuant to the authority granted by chapter 35, General Laws of Oregon, 1915, the industrial welfare commission has investigated the emergency overtime requirements of the fruit and vegetable canning and packing industry of Oregon and finds that for six (6) weeks of each year the aforesaid industry requires emergency overtime beyond the fifty-four (54) hours a week prescribed as maximum hours for women workers in such industry in I. W. C. Orders No. 2 and No. 5.

“WHEREFORE, the industrial welfare commission authorizes and permits the employment of adult women in fruit and vegetable canning and packing establishments in the State of Oregon for more than fifty-four (54) hours a week under the following conditions and rules which the aforesaid commission hereby today determines and prescribes:

“(1) Such emergency overtime shall not be permitted for more than six (6) calendar weeks, from May 1 to December 1 in any year.

“(2) The emergency overtime shall not exceed the fifty-four (54) hours a week now prescribed by I. W. C. Orders No. 2 and No. 5 by more than six (6) hours for any calendar week.

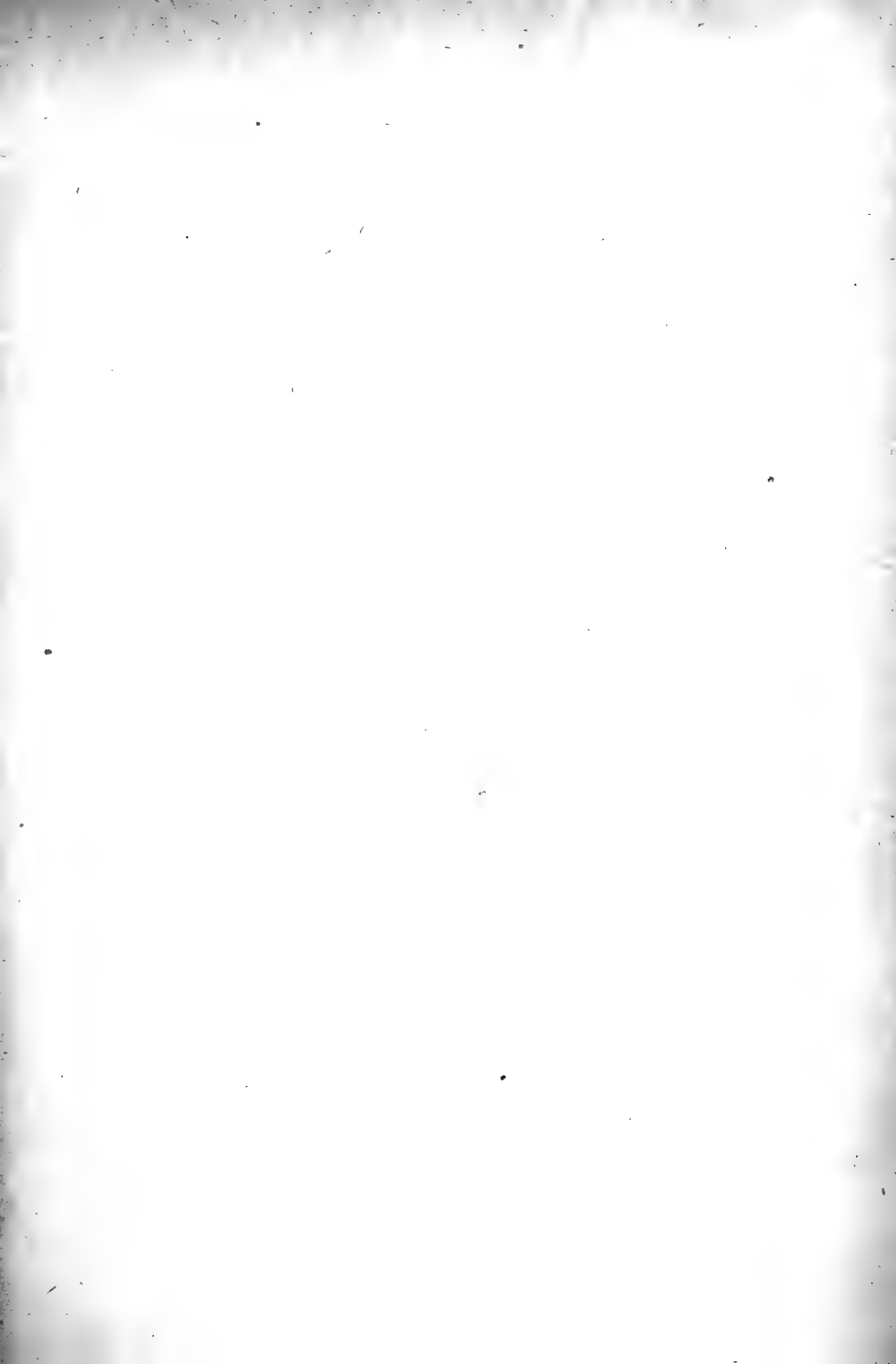
“(3) Nothing in this permit or order shall be interpreted as authorizing the employment of any woman for more than ten (10) hours in any day.

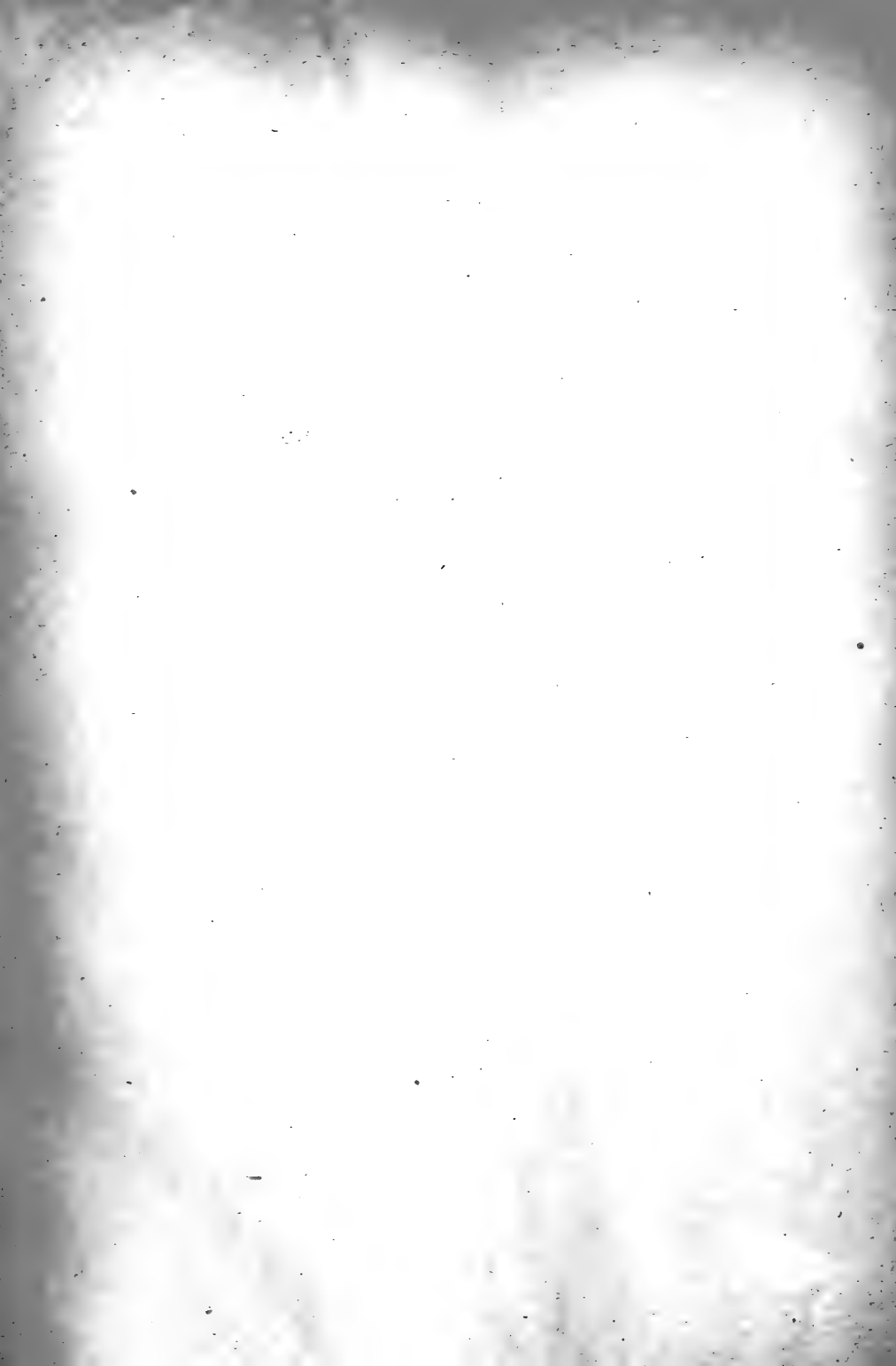
“(4) Such emergency overtime shall be paid for at a rate of not less than twenty-five cents (25c) an hour; and the earnings for emergency overtime shall in no case be included in the weekly minimum wage prescribed by the rulings of the commission, but shall in every case be over and above the weekly minimum wage prescribed by I. W. C. Orders No. 2 and No. 5 for adult women workers.

“(5) The owner or manager of every fruit and vegetable cannery or packing establishment in Oregon employing women under this emergency overtime permit shall furnish the industrial welfare commission on

or before the 5th day of each month a transcript, duly verified as hereinafter provided, of the weekly time and pay roll of each woman who has worked more than fifty-four (54) hours in any one week of the preceding month. Said transcript shall furnish the name and employee number of each woman employee.

" (6) Said transcript shall be verified by said owner or manager or some person in his behalf having knowledge of the facts by subscribing and swearing to a statement that said transcript is a full, true and accurate statement of the overtime worked by and the wages paid to each and every woman who has worked overtime ".





(c) Publications of the Bureau of Agricultural Intelligence and Plant Diseases.

1. LE SERVICE DE PROTECTION CONTRE LES MALADIES DES PLANTES ET LES INSECTES NUISIBLES DANS LES DIVERS PAYS (The Present Organization of the Services for the Control of Plant Diseases and Insect Pests in the Different Countries). (1914, 350 pages, 4to) Frs 4.00
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(d) Publications of the Bureau of Economic and Social Intelligence.

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(e) Other publications.

1. L'INSTITUT INTERNATIONAL D'AGRICULTURE, SON ORGANISATION, SON ACTIVITÉ, SES RÉSULTATS (The International Institute of Agriculture, its Organization, Activity, and Results). (1914, 31 pages, in English, French and Italian; illustr.) Frs. 1 --
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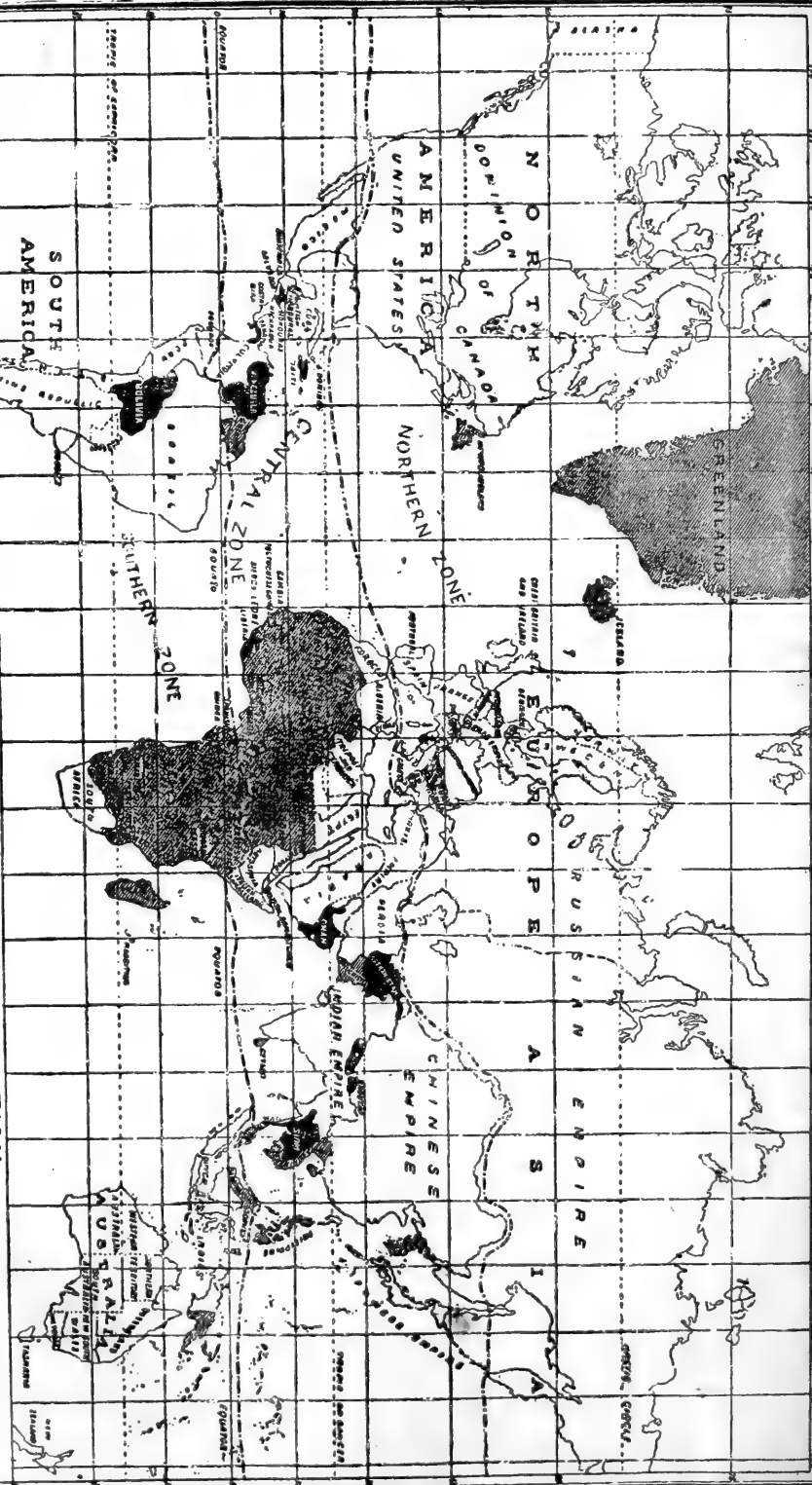
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EXPLANATION

- ☐ Countries and Colonies adhering to the Convention of the 7th June 1905,
 by which the International Institute of Agriculture was founded.
- ☒ Non adhering Countries.
- Line showing geographical zones established by the
 Institute in order to facilitate the collection of Statistics.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

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2. ANNUAIRE INTERNATIONAL DE LÉGISLATION AGRICOLE, 1st Year, 1911, (International Year Book of Agricultural Legislation, 1911). (1912, 1,122 pages, 16mo)		10 —
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Do. 4th Year, 1914 (1915, LXVIII + 1,020 pages, 16mo)		10 —
Do. 5th Year, 1915 (1916, LXXVVI + 1,460 pages, 16mo)		10 —

D. — OTHER PUBLICATIONS.

(a) Publications of the Library.

1. CATALOGUE DE LA BIBLIOTHÈQUE, ANNÉE 1909 (Catalogue of the Library, 1909). (356 pages, 8vo)	Frs.	3 —
2. LISTE DES REVUES ET JOURNAUX RÉGULIÈREMENT REÇUS PAR L'INSTITUT, 1913 (List of Reviews and Papers regularly received by the Institute, 1913). (84 pages, 16mo)		0,50

(b) Publications of the Bureau of Statistics.

(1) Various publications

1. L'ORGANISATION DES SERVICES DE STATISTIQUE AGRICOLE DANS LES DIVERS PAYS, Vol. I (The Organization of the Agricultural Statistical Services in the Different Countries, Vol. I). (1910, 446 pages, with tables in addition to the text, 16mo)		4 —
Do. Vol. II, (1913, 146 pages, 16mo)		2 —
2. RECUEIL DE COEFFICIENTS POUR LA CONVERSION DES POIDS, MESURES ET MONNAIES AU SYSTÈME MÉTRIQUE DÉCIMAL (Collection of Coefficients for the Conversion of Weights, Measures, and Money Values into the Decimal metric System). (1914, 84 pages, 32mo)		1 —

(2) Monographs (New Series).

1. L'ORGANISATION DE LA STATISTIQUE DU COMMERCE EXTÉRIEUR EN ITALIE (Organisation of the Statistics of Foreign Trade in Italy) (1913, 190 pages 16mo)		2 —
2. LE MARCHÉ DES CÉRÉALES D'ANVERS (The Antwerp Corn Market) (1913, 62 pages, 16mo).		1 —
3. LES BOURSES DES PRODUITS AGRICOLES DE HAMBOURG ET BUDAPEST (The Agricultural Produce Exchanges of Hamburg and Budapest). (1913, 55 pages, 16mo)		1 —
4. NOTES SUR LES STATISTIQUES DU COMMERCE EXTÉRIEUR DANS LES DIFFÉRENTS PAYS: Publications Statistiques, Territoires, Sortes de Commerce, Provenances et Destinations des Marchandises (Notes on the Statistics of Foreign Trade in the Different Countries: Statistical Publications, Territory, Kinds of Trade, Source and Destination of Goods). (1914, 96 pages, 16mo)		2 —
5. LA RÉPARTITION AGRICOLE DES TERRITOIRES DES DIFFÉRENTS PAYS (Areas under Crops in the Different Countries). (1914, 310 pages, 16mo)		5 —

(3) Other publications.

UMBERTO RICCI: LES BASES THÉORIQUES DE LA STATISTIQUE AGRICOLE INTERNATIONALE (Theoretical Bases of International Agricultural Statistics), (1914, 314 pages, 16mo)		5 —
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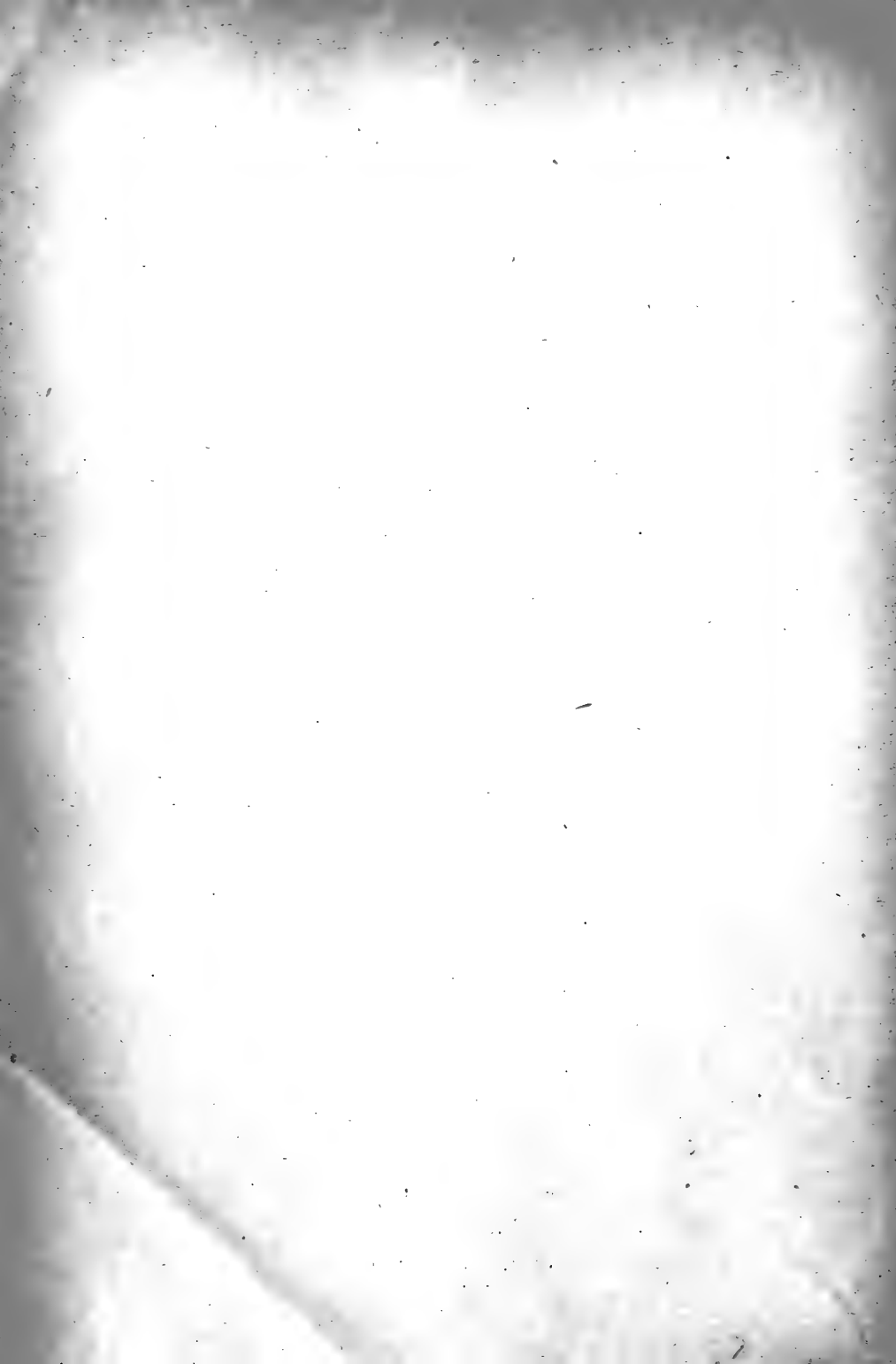
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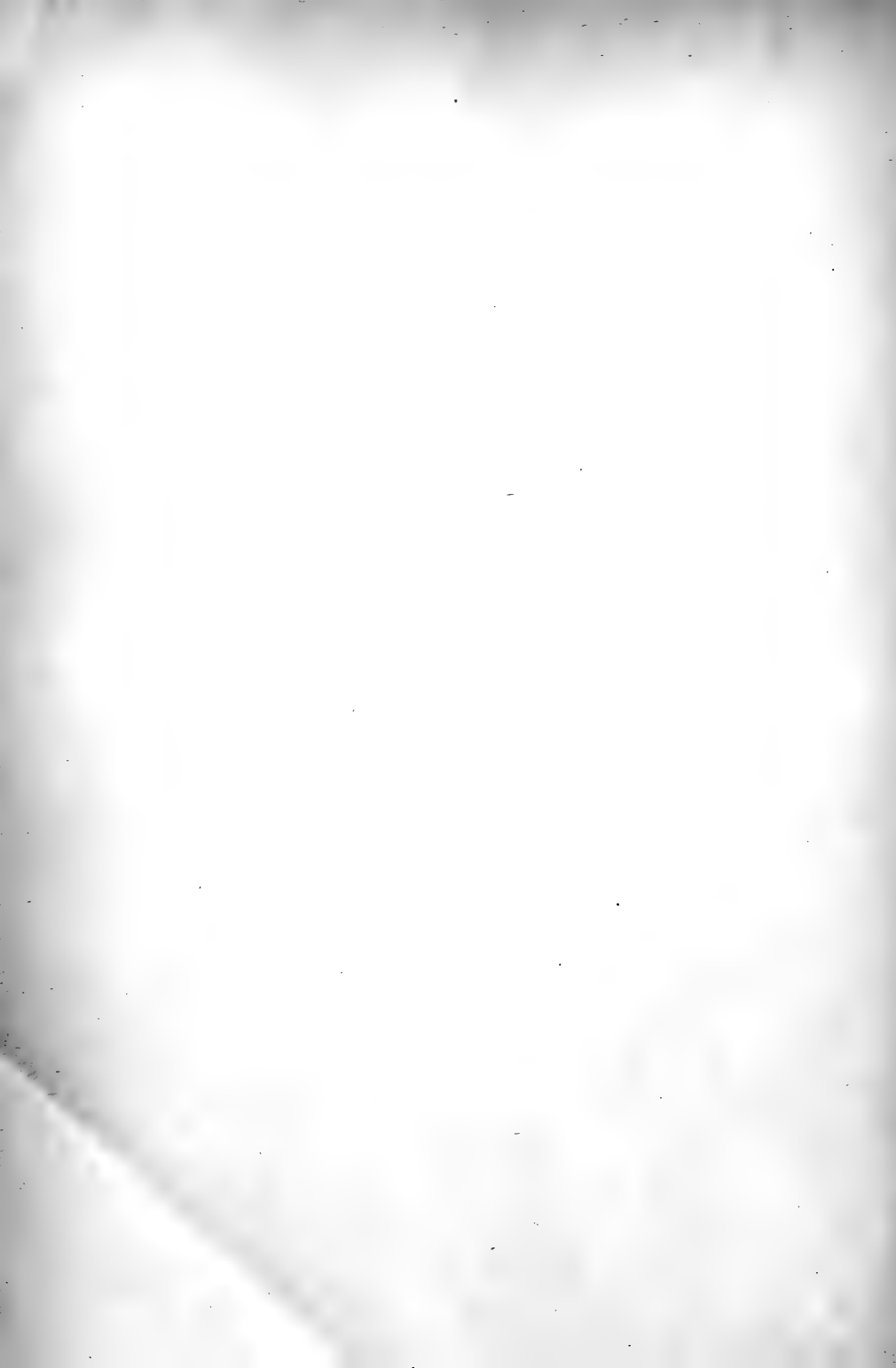
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Part I: Co-operation and Association

GERMANY.

THE GENERAL RAIFFEISEN FEDERATION IN 1914-1915 (*concluded*) (1).

§ 2. THE RURAL BANKS (*Spar- und Darlehnskassenvereine*)

The rural banks constitute 80 per cent of all the 5,680 co-operative societies belonging to the General Raiffeisen Federation, for they number 4,598. At the end of 1914 there were 4,558 rural banks. In 1915 forty-eight more joined the federation while eight left it. The increase was therefore one of forty societies. In 1914 it had been one of seventy-three.

All the rural banks are unlimited liability societies.

The report on these societies for 1914 was presented by 4,421 rural banks — 137 of them not reporting because their whole staffs had been mobilized.

The 4,421 societies included 485,416 members, that is an average of 110 for one society. The increase since 1913 was one of 8,839 members, the membership of 1913 having increased by 15,206 on that of 1912, which year had recorded an increase of 17,069 on 1911.

The capital in shares of the 4,421 rural banks was 5,057,345 marks (2), the reserve fund 32,778,993 marks, the working capital 827,605,640 marks.

The turnover was less in 1914 than in previous years, namely : 1914 — 1,435,215,859 marks ; 1913 — 1,572,013,669 marks ; 1912 — 1,573,887,576 marks.

The decrease is a result of the restriction of credit during the war.

(1) See first part in our issue for February 1917, page 1.

(2) 1 mark = about 11 $\frac{3}{4}$ d. at par.

Savings.

Savings amounted to 82 per cent. of the year's capital, namely 682,618,933 marks, and had increased by 33,956,963 marks on those of 1913.

The increase did not however arise out of increased payments but out of a diminution of deductions, as appears from the following figures :

	Payments	Deductions
1912.	204,175,046	168,881,862
1913.	214,520,120	173,843,266
1914.	195,843,529	152,286,744

Savings paid in were less in 1914 than in 1913 and 1912. But since here also the amount of deductions was less an increase in the total amount of savings resulted.

The rate of interest paid by the banks to savers was from 3 to 6 per cent., having been from 3 to 5 per cent. in 1913.

Current Accounts at the Central Bank.

At the end of 1914 the rural banks had debited current accounts at the Central Bank amounting to 68,772,537 marks. The debt was less by 9,819,567 marks than its amount in 1913 and less by 8,430,541 marks than its amount in 1912.

As a consequence of this decrease in current account liabilities and the increase in current account credit the rural banks, which were the debtors of the Central Bank before the war, had become its creditors, for their credit accounts with this bank reached the sum of 95,139,579 marks as against 78,302,126 marks in 1913.

Credit for Fixed Terms.

Such credit amounted to 61.5 per cent. of the whole assets of the rural banks, namely 499,673,745 marks out of 832,006,308 marks.

The increase since 1913 was of about eight million marks but it resulted, as the following figures will show, not on increased new credit but on diminished repayments :

	Credit granted	Repayments
1913.	98,763,252	70,776,473
1914.	72,001,670	57,306,084

The rate of interest paid by members to the rural banks was from $3\frac{3}{4}$ to $8\frac{1}{2}$ per cent., as compared to its rate of from 3 to 7 per cent. in 1913.

Current Accounts with Members.

The currents account of the societies' banks and their members increase from year to year. In 1914, 3,536 rural banks — 80 per cent. of them — had opened current accounts with their members.

The total amounts of these current accounts were as follows :

Credit current accounts.	45,152	for	123,722,498	marks
Debit " "	24,606		32,567,379	"

A new circumstance appeared in connection with these accounts. Previously the sums paid by members into the banks were always less than those paid by banks to members, but in 1914 the converse was true, as appears from the following figures :

	Payments by Members	Payments by Banks
1912.	132,879,067	144,539,139
1913.	136,225,301	149,073,587
1914.	131,203,766	127,860,370

If the totals of incoming and outgoing sums be examined the following conclusions are reached :

1. The total receipts — payments of members in savings and to current accounts, repayments of debts by members, credit granted by the Central Bank — , and the total disbursements — credit granted to members, repayments of sums due to members and to the Central Bank — were less than in previous years.

2. The total receipts exceeded the total disbursements. This is the contrary of what was true of earlier years and is explained by the restricted credit granted during the war :

	Total Receipts	Total Disbursements
1912.	407,214,867 marks	423,903,591 marks
1913.	421,521,894 "	421,680,105 "
1914.	384,353,379 "	352,148,784 "

In addition to credit transactions many rural banks buy and sell merchandise on behalf of their members.

The purchase of merchandise was practised by 3,917 rural banks. The value of the bought merchandise was 54,326,650 marks as against 68,641,827 marks in 1914.

The details of purchases show that the following sums were spent on the following articles in the two years compared :

Manure. . . .	21,892,942 marks	23,979,835 marks
Forage. . . .	17,476,904 "	19,899,825 "
Combustibles. .	6,456,275 "	6,973,625 "
Seeds.	2,189,015 "	2,532,716 "
Machines. . .	910,322 "	1,344,194 "
Various. . . .	6,049,771 "	4,451,265 "

The sale of merchandise for members was unimportant, special co-operative societies having been created for this object. The value of the merchandise sold by the rural banks was 2,743,861 marks.

For the 4,421 rural banks the year's books were closed showing : a profit in the case of

3,884 which realized altogether 3,212,113 marks of profit ;
a loss in that of 516 " lost " 523,214 " .

Twenty-one realized neither a loss nor a profit.

The net profits were therefore 2,688,899 marks, as against 2,852,416 marks in the previous year.

§ 3. CO-OPERATIVE SOCIETIES OF CONSUMPTION, PRODUCTION AND LABOUR.

At the end of 1914, 1045 co-operative societies of this kind belonged to the General Raiffeisen Federation. In 1915 it was joined by thirty-six more while fifteen ceased to belong, so that the total membership was 1066, distributed as follows :

	31 December 1914	31 December 1915
I. Co-operative Consumers' Societies	51	65
II. Co-operative Producers' Societies	488	489
1. Dairies	310	309
2. Cellars	44	43
3. Distilleries	52	52
4. Essication of Potatoes . . .	16	17
5. Granaries	20	20
6. Sale of Live Stock	26	28
7. Various	20	20
III. Co-operative Labour Societies.	417	414
1. Threshing	82	83
2. Employment of Electric Power	316	315
3. Various	19	16
IV. Co-operative Breeding and Pasturage Societies	20	22
V. Co-operative Societies of Artisans and Tradesmen	9	9
VI. Various	60	67

These societies had the following forms :

	1914	1915
Unlimited liability societies.	262	258
Limited " "	760	782

It is seen that those of the second kind had become more numerous, those of the first fewer. In the case of all the kinds of co-operative societies which have been enumerated the prevalent type is that of a limited liability society, except in the case of collective cellars which are held by unlimited liability societies in forty out of forty-three cases.

Of all the co-operative societies existing at the end of 1914 only 807 reported on their business. Owing to the mobilization of their staffs 215 made no report.

1. *Co-operative Societies for the Purchase and Sale of Merchandise.*

At the end of 1914 there were fifty-one consumers' co-operative societies and twenty co-operative granaries. During 1915 there were fourteen new adhesions, so that at the end of the year there were eighty-five societies, seventy-five having limited and ten unlimited liability. Of this number only forty-eight reported on their business in 1914.

For the milk and cream delivered 26,373.553 marks, or an average of 0.102 mark a litre, has been paid to members.

The milk was used as follows :

sold as delivered.	. . . . .	25,333,368	litres or	9.8	per cent
used to produce cream.	. . . . .	7,000,000	" "	2.8	" "
" " cheese.	. . . . .	11,251,106	" "	4.4	" "
" " butter.	. . . . .	217,973,895	" "	8.4	" "
277 dairies (1) closed their books showing a total profit of	. . . . .	805,958	marks		
51 " (2) " " " " " " " loss	. . . . .	243,245	"		
8 " " " " " " no profit or loss.	The net				
profits therefore amounted altogether to	. . . . .	562,713	marks		

1914 was a less profitable year than 1913.

3. *The Collective Cellars.*

These numbered forty-four at the end of 1914. In 1915 two retired from membership and there was one new adhesion. At the end of the year the total number was therefore forty-three, forty having unlimited and three limited liability. The greater number of unlimited liability societies in this group is due to the fact that almost all of them were formed in a period in which the Raiffeisen principles were strictly observed. Forty-one reported on their activity but without much detail.

* The number of members was 2,233. The capital in shares was 141,853 marks (3), the reserve fund was 175,398 marks and the year's capital 2,731,389 marks.

There are no data as to the quantity of grapes delivered to the societies.

21 co-operative cellars closed their year's books showing a total profit of . . . 32,392 marks
17 " " " " " " " " " " loss " . . . 128,082 "
3 " " " " " " " " " neither profit nor loss.

4. *The Distilleries.*

There were 52 of these at the end of 1914 and throughout 1915. All or nearly all the distilleries are in East Prussia where the potatoes which are distilled are grown. Thirty-six of them belonged to the district federation of Dantzig, nine to that of Koenigsberg and four to that of Breslau. Thirty-one of them have limited and sixteen unlimited liability, while

(1) in 1913: 335 dairies made a profit of	1,033,098	marks
(2) » 1913: 37 » » » loss » » » »	159,530	
	<hr/>	
that is 372 » » » net profit	873,568	»

(3) The societies' own capital was insufficient if the fixed capital necessary to the enterprise be considered.

five are not subject to any rule of the law on co-operative societies. Only thirty-four reported on their work.

The total number of their members was 617. Their capital in shares was 413,702 marks, their reserve fund 155,789 marks, their year's capital 2,240,730 marks and their fixed capital 1,596,860 marks. The capital belonging in their own right to the unlimited liability societies was equal to 6.8 per cent. of their year's income. In the case of the limited liability societies, this percentage was 23.7.

Only twenty-four distilleries have furnished data as to their production. These had used 324,519 zentners of potatoes, 1,798 zentners of beet-root, and 1,678 zentners of Jerusalem artichokes. Of this quantity members had delivered only 290,423 zentners; the rest had been bought in the market. The co-operative societies had paid 1.79 marks for the potatoes which had been delivered.

Owing to statutory restrictions production had been less than in the previous year.

5. *Essication of Potatoes.*

Only sixteen co-operative societies of this kind belong to the General Raiffeisen Federation, two of them have unlimited and twelve of them limited liability while two are not subject to the law on co-operative societies.

All these sixteen societies reported on their activity, as did five other societies which essicate potatoes as an accessory business. They comprised 936 members, they had a capital in shares of 341,509 marks, a reserve fund of 96,935 marks, a year's capital of 2,255,748 marks and a fixed capital of 1,278,360.

The sixteen societies treated 1,216,071 zentners of potatoes by essication, the other five 138,173 zentners. Of these quantities 938,512 zentners were delivered by members and 109,119 zentners by other producers, while 168,440 zentners were bought in the market. The resultant production was of 339,370 zentners of potato flakes and 32,665 zentners of potato slices. The greater share of these products was remitted to the members and others from whom the raw material had been bought, only 165,161 zentners of flakes and 5,500 zentners of slices being sold in the market.

6. *The Sale of Live Stock.*

Co-operative societies having this object have only existed for a few years and are all in East Prussia where the production of live stock is greatly in excess of the consumption.

There were twenty-six of them at the end of 1914, and in 1915 there were three new adhesions while one society retired from membership. At the end of 1915 there were therefore twenty-eight societies, namely eleven in the Koenigsberg district federation, eight in that of Dantzig, seven in that of Berlin, and two each in those of Coblenz and Ludwigshafen.

All are limited liability societies. They regularly sell live stock on commission. Only two of them buy their members' live stock and resell it in the market on their own account.

Only fourteen reported on their business and they did not give detailed data.

The number of members was 5,835, the capital in shares 17,750 marks, the reserve fund 109,320 marks, the year's capital 329,950 marks.

7. Co-operative Threshing Societies.

There were eighty-two of these at the end of 1914, and at the end of 1915 eighty-three of which fifty-nine had limited and twenty-five unlimited liability.

The data as to their business were furnished by seventy-four societies of whom twelve gave few details.

Their members numbered 1,907, their capital in shares was 101,072 marks, their reserve fund 37,539 marks, the year's capital 646,965 marks, of which the greater part was represented by the value of the machines. The year's capital varies notably according to whether a society owns or hires its machines.

30	societies	closed	their	books	showing	a	total	profit	of	11,639	marks
32	"	"	"	"	"	"	"	loss	"	25,579	"
12	"	"	"	"	"	"	"	neither	profit	nor	loss.

The losses result on an insufficient use of the machines. They worked in 1914 for 36,101 hours, that is on an average 582 hours for each society, instead of 37,835 hours of work and an average of 641 for one society as in 1913.

8. Co-operative Societies for the Employment of Electric Power.

The first co-operative society of this kind was formed in 1906. At the end of 1914 there were 316 of them, and at the end of 1915 there were 315 of which nine had unlimited and 307 limited liability. Only a few societies own their plant: most of them hire their electric power on lease from an enterprise and distribute it among their members.

213 of them reported on their work in 1914.

Their members numbered 15,396, their capital in shares was 159,499 marks, their reserve fund 8,364,052 marks, their fixed capital 4,991,445 marks.

111	societies	closed	their	books	showing	a	total	profit	of	44,365	marks
97	"	"	"	"	"	"	"	loss	"	31,584	"
5	"	"	"	"	"	"	"	neither	profit	nor	loss.

The following table gives data as to co-operative societies less important than those with which we have dealt:

Object	No. of Societies	Liability	No. of Members	Capital in Shares	Reserve Fund	Year's Capital	Fixed Capital	Profits	Losses
				marks.	marks.	marks.	marks.	marks.	marks.
Sale of tobacco	3	limited	354	10,547	12,558	362,999	37,123	2,488	60
" " honey	2	"	83	2,255	630	7,280	—	987	—
" " fruits	2	"	137	6,975	44,549	110,913	37,980	1,653	—
" " fish	2	"	136	1,360	—	115,802	76,172	6	6,924
" " vegetables	1	"	2,258	47,920	152,641	205,461	—	19,567	—
" " eggs	1	"	32	64	251	451	—	32	—
" " dextrine	1	"	7	51,254	4,535	72,453	67,000	2,997	—
" " butter	1	"	?	9,800	17,561	279,651	234	2,736	—
" " preserves	1	"	65	55,200	51,802	488,667	185,371	21,211	—
" " dry leaves	1	unlimited	7	24,500	—	57,016	46,971	—	—
Mills	2	{ 1 " } 1 limited	78	3,818	—	122,274	39,218	—	12,910
Aqueducts	4	"	213	22,735	752	116,388	98,475	340	175
Steam labour	1	unlimited	12	26,400	—	52,502	36,109	106	—
Horse breeding	11	limited	513	4,657	2,125	72,727	29,542	216	4,839
Pig	12	"	72	379	847	1,226	—	124	—
Bectroot growing	1	"	24	120	640	760	—	102	—
Shepherds' societies	6	"	261	29,312	2,214	490,000	454,733	6,120	130
Artisans'	6	"	197	53,718	32,240	522,287	163,289	13,491	—
Consumers'	9	{ unlimited } 7 limited	1,749	36,434	47,067	159,843	11,376	20,285	44
Colonization	6	"	588	90,358	86,372	901,946	455,871	5,529	6,134
Building	4	"	260	37,734	2,224	346,936	267,710	3,359	—
Various	14	"	2,017	1,226,621	606,397	8,980,378	870,510	200,770	70,415

Five selling, sixteen labour and twenty-seven various co-operative societies did not report.

AUSTRIA.

THE CO-OPERATIVE OILMILLS IN DALMATIA.

SOURCE:

ZMAVE (A.) *Die Oelbaugenossenschaften in Dalmatien-Oesterreichische Landwirtschaftliche Genossenschaftspress*, Vienna, 15 and 29 April, 13 and 27 May 1915.

GENERAL REMARKS.

There are sixteen co-operative oilmills in Dalmatia, but three of them are old societies without real vitality and we will here therefore treat of only thirteen.

The legal constitution of a co-operative oilmill entails the following formalities :

- 1) A meeting for the purpose of foundation which constitutes at the same time the co-operative society's first general meeting ;
- 2) A report of the foundation meeting and of the first general meeting ;
- 3) The drawing-up of by-laws ;
- 4) A scheme for a budget and for the amortization of the capital in shares ;
- 5) A joint declaration of adherence by the founder members ;
- 6) An enquiry as to the average annual production of the members ;
- 7) A request signed by the co-operative society for incorporation.

An *Union of Co-operative Societies (Zadrugni savez)* has its premises at Spalato and Ragusa ; and the *Landeskulturrat* for the kingdom of Dalmatia has established at Zara a branch for olive oil, which is supported by the imperial and royal government and which has among other tasks that of selling on commission oil remitted to it for such purpose by the co-operative societies.

All the co-operative societies have the peculiarity that their by-laws oblige each of their members to belong to them for at least five years from the time at which they become active.

The following are the thirteen co-operative societies for the production of oil, placed in the order of the date of their foundation and first activity :

1908-1909 : Kali, Preko, Zmau.

1909-1910 : Igrane, Janjina.

1910-1911 Murter, Praskvica (which adhered to the Serbian Federation *Savez sepskih privrednih zadruga na Primorju* in Ragusa) Pučišće.

1911-1912 : Banj, Briso, Iž Veliki, Tučepi.

1912-1913 : Podgora.

The membership of all these societies has gradually risen from 200 at the end of 1908-1909 to about 1,300 at the end of 1913-1914.

Corporations — as for instance communal banks — are frequently among the members.

The members of the directing body and the superintending council are most frequently numerous — three to eleven ; but three to five would usually suffice. Almost always they are obliged to undergo a preliminary initiation in their functions, a precaution which has in several cases yielded entirely encouraging results.

§ 1. CAPITAL OF INSTALLATION.

An oil co-operative society's capital of installation is generally considerable, being proportionate to the amount of oil which should without fail be produced, an amount which is not easily determined in advance. The almost complete lack of certain statistics with regard to the local production of the olive trees, and the realization of their value and of that of olive-oil, obliges recourse to valuations. The matter is complicated by another and weighty factor, namely the frequent desire of most olive-growers in the society's district to have actual proof of the society's good results before they decide to adhere to it.

It has been noticed that a small enterprise needs a relatively larger capital than one which is more important. The general statement may be made that in view of particular conditions in Dalmatia the total costs of installation should not exceed 150 crowns (1) per quintal (2) of the average quantity of oil annually produced. Thus a society producing on an average 50,000 kilogrammes (3) should invest in its own enterprise only $500 \times 150 = 75,000$ crowns. Approximate estimates show that each of the thirteen societies has on an average an annual total production of 4,000 quintals and an installation capital of more than 800,000 crowns, that is more than 200 crowns for each quintal. In recent years the average amount of oil produced has however been less than 2,000 quintals

(1) 1 crown = about 10 $\frac{1}{12}$ d at par.

(2) 1 quintal = 220 lbs.

(3) 1 kilogramme = 2 $\frac{1}{5}$ lbs.

owing to conditions unfavourable to the harvest and the marketing of the olives. It may be concluded that the amount of installation capital, which we have estimated at 200 crowns a quintal, has been more than doubled in the period in question and surpasses 400 crowns, which would represent an important and lasting increase in the expense of producing the oil, an operation lasting from forty to fifty days when it takes place in normal conditions. It seems however as though the heavy burdens now incident to the production of oil would give place to more favourable circumstances in the near future, if the olive harvest would but return to a normal level.

The costs of installation include in substance those incurred in acquiring a site and buildings (real estate), as well as machines, implements and other necessities.

All the thirteen co-operative societies except that of Banj possess mechanical motor power.

Most of the buildings have been specially erected for the production of oil, or at least they have been bought and adapted to their new purpose. In a few cases the communes have freely placed building land at the disposal of the promoters. It has happened that private individuals, themselves producers of olives, and desirous of adhering to a co-operative society or being among its founders, have seen in its formation an opportunity to speculate with their land. They have in consequence given themselves up to a blind propaganda in favour of its formation, without for an instant asking themselves if it would supply a general need.

The value of implements and machines is generally double that of real estate, but this relation varies with the number of the machines. The co-operative society of Banj, which employs only manual labour, has implements worth only half as much as its real estate.

The thirteen co-operative oilmills are insured against fire with the Agrar co-operative insurance society called "Croatia" for a sum of about 700,000 crowns.

§ 2. GRANTS AND FACILITIES FOR CREDIT.

The State and the province make grants to the co-operative oilmills. Hitherto the State has paid them 400,000 crowns and the province 60,000 crowns, the total sum thus granted being equal to half their installation capital. The State's grant is in the form of annuities of from 2,000 to 5,000 crowns. As a general rule grants must be used for the amortization of debts and entered on the credit side of the societies' balance-sheets.

Two thirds of the State's grant are used to amortize debts incurred at the time of foundation; the other third goes to the working funds and may be used to cover working costs or meet a year's deficit. The same conditions apply to the provincial grant. If in spite of the grants the year's business still show a deficit, advantage is taken of the relevant by-laws, which allow

the proportional amortization of a deficit shown on the balance-sheet from the shares, if the ordinary reserve be insufficient to meet it.

The federation of the co-operative societies of Spalato decided some time ago that the credit granted to co-operative oilmills must not be more than double the amount of the paid-up shares. The total amount of the paid-up shares of the thirteen societies passed from 6,500 crowns in 1908-1909 to 65,000 crowns in 1913-1914. The amount of the unpaid-up shares is unimportant. The number of subscribed shares is still too small, averaging barely half of what it ought to be, namely 25 per cent. of the working capital. If the grants were for any reason diminished the capital in shares of the co-operative societies ought to be proportionately increased.

§ 3. THE OILMILLS.

In spite of their evident advantages there are great drawbacks to the oilmills supplied with mechanical motor power. Its employment is only advisable and permissible in the case of important enterprises suffering from a serious shortage of labour. Mechanical motor power is useful above all for the propulsion of olive-mills and hydraulic olive-presses for which considerable force is certainly needed. It would certainly sometimes be more profitable to small societies to use manual labour, an olive-mill being easily worked by animal power and hydraulic presses by hand. The method would render considerable economies possible, especially in years of bad harvest.

Moreover many co-operative enterprises for oil production would be entirely fitted to serve other ends than those of olive-growers. From the technical point of view it ought for instance to be possible to use their plant, when certain additions have been made to it, for realizing the value of grapes and wine. The fact that they generally possess mechanical motor power would allow a large threshing machine to be employed in them with profit; and one which was moveable would provisionally amply supply the needs of co-operative oil societies which also produce cereals. At present eight out of the thirteen societies grind cereals but only rarely in a scientific way. The society of Janjina has obtained the best results in this respect. As a rule the mills are used rapidly because there is a lack of experienced master-millers. The members of the co-operative societies are bound to use the co-operative mills exclusively. The home production of cereals is small, and the collective purchase of varieties of seeds suited to the country would be most advisable, the more so because the right to import free of customs-duties into Dalmatia is granted by the authorities or could be obtained from them. A cheaper, larger and better supply of bread could thus be secured, as has been proved by the experience of the well managed mills, and the food supply of the Dalmatian population would benefit indisputably. Various Raffeisen funds (*Seoske blagajne* or communal funds) which are active locally or in the neighbourhood have joined the co-operative societies for oil production as corporation-members, in order to give their

own members the opportunity of grinding their cereals in these societies' mills. At present the cost of grinding must not be less than two crowns for a quintal and must be paid immediately in cash. When competing mills exist already, co-operative mills should not be installed. Mills worked by hydraulic power are the least costly and those worked by a benzine engine the most costly. Those propelled by engines for heavy oil and gas aspiration engines cost less, but are not adapted to important mills needing great power. If electric power can be obtained on good terms an electric engine is preferable to any other.

§ 4. GENERAL RESULTS.

To resume: the production of olives and the preparation of olive-oil are undertaken by co-operative societies for this purpose, whose activity is constantly controlled by the section for olive-oil at Zara of the *Landeskulturrat* of the kingdom of Dalmatia. Sales are undertaken by this section in the capacity of an office for sales on commission. It directs, among other things, a central warehouse provided with all modern technical improvements and able to store from 4,000 to 5,000 quintals — that is 10 per cent. of the average total of a good harvest in Dalmatia. About one tenth of the Dalmatian production seems indeed to be organized co-operatively.

The costs of preparing olive oil — exclusive of those of producing the oil and the olives — vary much, their average being — according to the results obtained hitherto — about 5 crowns for 100 kilogrammes of olives or 30 crowns for 100 kilogrammes of oil, that is from 20 to 30 per cent. of the effective or market value of the oil. These costs might in time be reduced by a third or perhaps a half, given average olive harvests and their economical exploitation. The section for oils of the *Landeskulturrat* pays the co-operative societies advances on their oil, almost always at the rate of the market price of common oil, and writes off such advances against the money it eventually pays for the oil. The price has latterly varied from 85 to 100 crowns for 100 kilogrammes of oil.

The following table shows the importance and the results of realizing the value of the oil by a co-operative method. It should be remembered that the Podgora co-operative society for oil production has not yet delivered any oil, and also that the figures which show the oil circulated by the central warehouse, in the capacity of an office for sales on commission, are really higher by about a third than those in the table, because other associations and also individuals regularly deliver oil to be sold on commission on the same terms.

Year	1909-10	1910-11	1911-12	1912-13	1913-14	Total
Number of delivering co-operative societies. . . .	7	5	12	10	3	—
Quantity of olive-oil. . . .	632	1,487	2,304	2,344	85	6,852 q.
Gross product.)	94,848	186,613	331,719	341,724*	11,460*	966,364 K.
Costs.) Total	1,841	13,572	53,268	46,880*	1,460*	117,021 "
Net product	93,007	173,041	278,451	294,844*	10,000*	849,343. "
Gross product.)	150	125	144	146*	135*	141 "
Costs.) for 100 kilo-	3	9	23	20*	17*	17 "
Net product	147	116	121	126	118*	124 "

. NB. — Several co-operative societies delivered oil before their machines were completely installed for example in 1909-10.

* Estimated value.

CANADA.

RECENT SUCCESSES OF AGRICULTURAL CO-OPERATION IN CANADA.

SOURCES:

- ALBERTA CO-OPERATORS' ANNUAL (*Report of the Alberta Farmers' Co-operative Elevator Company*) in *The Grain Growers' Guide*, Winnipeg, 22 November 1916.
- SASKATCHEWAN CO-OPERATIVE ANNUAL (*Report of the Saskatchewan Co-operative Elevator Company*) in *The Grain Growers' Guide*, Winnipeg, 29 November 1916.
- THE GRAIN GROWERS' ANNUAL (*Report of the Grain Growers' Grain Company*) in *The Grain Growers' Guide* 6 December 1916.

§ I. INTRODUCTION.

The agricultural year 1915-1916 was exceptional in Canada in the three respects of the high yield, the quality of the crops and the high selling price of grain. These favourable conditions have allowed the three great co-operative organizations of the western provinces to develop their interior activity, to realize enormous profits, and consequently to gain an enormous amount of support in agricultural circles.

In the whole world there is nothing comparable to these three organizations — the Saskatchewan Co-operative Elevator Company, the Grain Growers' Grain Company in Manitoba and the Alberta Farmers' Co-operative Elevator Company. They include at the present moment more than 48,000 shareholders; the total sum of their assets exceeds \$8,000,000 (1) and their paid-up capital in shares is about \$2,000,000.

Last year 90,000,000 bushels of grain, or about a third of the total quantity produced in Canada for the market, passed through their hands. Their profits are represented by hundreds of thousands of pounds. The Manitoba Company realized last year a profit of \$775,000, the Saskatchewan Company one of \$757,000 the Alberta Company one of \$282,000. Their combined profits amounted therefore to \$1,814,000.

(1) § 1 = about 4s 1 ½d at par:

This considerable sum returned in part to the producers themselves, as shareholders in the companies, in the form of dividends. In part it went to swell the reserve funds of the companies, thus allowing them to multiply and intensify their future activities on behalf of the farming class. A balance amounting to \$620,000 entered the coffers of the State in the form of a tax on profits.

The three companies now own or work more than five hundred local elevators. Including the buildings now in course of construction they dispose, or will do so shortly, of a storage capacity of more than five million bushels.

It is fair to note that the development of agricultural organization in the Prairie provinces is largely due to the perseverance and the sane commercial and financial methods shown in the management of the Manitoba Grain Growers' Grain Company. These were the best means of advancing the cause of union and co-operation among the farmers.

It is also apposite to recall that these companies enjoy no special privileges. They compete with the purely commercial companies, and the tariffs they apply to the handling of grain are fixed either by the Canadian Grain Commission or by the Winnipeg Corn Exchange, which control them. Their activity and their success are therefore the more remarkable and are proof of the excellency of their methods.

The figures representing profits which we have given are far from affording an accurate idea of the advantages which farmers derive from this organization. The departments for co-operative provision, which allow a farmer to procure the products and other foods he needs almost at cost price without the intervention of middlemen, mean an enormous economy to farms. Wood, wire, coal, rope, agricultural machines and tools are thus provided to their members by the companies in increasing quantities. The Manitoba Company has even bought vast extents of forest land in order to command the timber needed by its members, which it cuts down and markets itself. The sale of agricultural products other than grain by these companies is becoming increasingly important.

It is therefore not surprising that the report of the Manitoba Company concludes with a very promising forecast :

" If the shareholders and those whom they have placed in charge of the respective companies' business remain true to the principle and ideal which brought them into existence, they cannot fail to increase in the right direction their power and influence in the commercial life of Western Canada. While it is always dangerous to enter the realm of prophecy, it is not too much to expect that within the next ten years the farmers of Western Canada will be operating their own sawmills and their own flourmills, possibly their own coalmines and meat packing plants, and may be caring for their own fidelity and fire insurance ".

The decision taken at the respective general meetings of the Manitoba Grain Growers' Grain Company and the Alberta Farmers' Co-operative Elevator Company to merge themselves into a single company which will be known as the *United Grain Growers* represents a fresh step towards the uni-

fication of agricultural organization and co-operative action. The new combination will have a capital in shares of \$5,000,000. The eventual aim seems to be the concentration in one organization of all the three great companies of Western Canada, but hitherto the Saskatchewan Company has not considered the question of merging itself in the other two.

We will now give some exact data as to these three farming organizations, without further comment since the figures speak for themselves.

§ 2. THE SASKATCHEWAN CO-OPERATIVE ELEVATOR COMPANY.

The report submitted by this company's board of directors to the last annual general meeting, which was held at Regina on 22 November 1916, includes some very significant figures as to the business done and the profits realized.

The year in question was the fifth since the society's foundation. The authorized share capital was \$2,500,000; the share capital subscribed on 31 July 1916 was \$2,358,900; and the share capital paid up at this date \$627,342. From 1 April 1915 to 31 July 1916 approximately 211,000,000 bushels of wheat and 59,000,000 bushels of oats, barley and flax were despatched from Saskatchewan. The company handled altogether 43,198,000 bushels of grain, or about 15.8 per cent. of the total export. It loaded 4,109,000 bushels over the platform while 39,089,000 bushels passed through its 230 elevators. These figures are proof of intense activity. The total amount of grain which passed through its elevators in the first three years of the company's existence was surpassed in this single year. On an average 170,000 bushels — that is 68,000 bushels more than in the most active of previous years — passed through each elevator. One of them alone received 520,000 bushels. As a direct consequence of the enormous amount of business done the costs of handling the grain were lower than in previous years.

The grain stocks held on 31 July 1916 were valued at \$1,724,020.

Twenty-seven new elevators were built during the building season of 1916 and one was bought. Further in the beginning of last July the company began to build at Port Arthur in Ontario a terminal elevator which will have a tank capacity of 2,000,000 bushels and a workhouse capacity of 500,000 bushels. Additional units to provide a total storage extending to 16,000,000 bushels can be added as required; and the workhouse is designed so that it can give a total eventual storage capacity of 8,000,000 bushels. The building is to be ready on 1 September of this year and the estimated cost of the whole undertaking is \$1,225,000.

On 31 July 1916 the cost of construction up to date was \$2,024,272; and, allowing for depreciation, the assets in the buildings were valued at \$1,861,072. The advances granted on bills of lading amounted to \$530,476. Among the liabilities of the company at this date were the loan and interest, amounting to \$1,639,267 due to the government of Saskatchewan;

\$982,268, the amount of cash grain tickets and settlements due to the public; and \$199,479, being the war tax on business profits between 31 July 1914 and 31 July 1916 and due to the Dominion government. This tax amounts to 25 per cent. of all profits beyond 7 per cent. of the invested capital, reserves included, and should be paid on the profits of three financial years. The reserves amounted to \$322,973.

The profits of the year 1915-1916 show the growing importance of the enterprise. They amounted to \$757,275 which, when the war tax had been deducted, allowed of a dividend of 8 per cent. of paid-up capital on all shares allotted before 1 April 1916.

§ 2. THE ALBERTA FARMERS' CO-OPERATIVE ELEVATOR COMPANY.

This company was registered in virtue of a special Act of 23 March 1913 and is therefore of quite recent foundation. Its growth is clearly shown by the following table:

Date	Number of Elevators	Number of Shareholders	Number of Subscribed Shares	Subscribed Share Capital	Paid-up Share Capital
				\$	\$
August 1913	46	4,665	7,272	436,220	87,264
October 1914	76	8,483	9,428	555,680	117,108
November 1915	87	9,353	12,127	727,670	163,869
November 1916	103	11,236	14,472	868,320	301,737

The activity of the company's elevators is shown by the following figures:

Farming season 1913-1914	\$3,774,396	bushels of grain received in the elevators
" " 1914-1915	5,039,100	" " " " " "
" " 1915-1916	19,320,536	" " " " " "
" " 1916-1917 (3 months)	more than 600,000	" " " " " "

The commission department, which dealt in 1914-1915 with only 1,211,000 bushels, dealt in the following year with 10,384,156 bushels and in the first three months of the current year with more than 2,000,000 bushels.

The live stock department which began its activity on 1 April 1914 has since accomplished the business shown by the following table :

Year	No. of Cars consigned	No. of Hogs	No. of Head of Cattle	No. of Sheep	Value
					\$
1913-1914	141	11,000	—	—	—
1914-1915	763	56,603	1,129	805	605,809
1915-1916	513	36,624	3,545	659	878,042
1916-1917 (3 first months)	258	6,712	3,493	1,502	305,846

The figures for all the branches of the company's work are equally interesting. In the first three years 59,222 and 160 carloads of flour and fodder for live stock and 33,150 and 372 carloads of coal were respectively provided ; and in the first three months of 1916-1917 796 carloads. The quantity of posts provided passed from 75 carloads to 204 in 1915-1916 ; that of twine from 55 carloads in 1914-1915 to 78 in the next year ; that of lumber and building material from 19 to 42 carloads ; that of wire from 13 to 23 carloads. In the first three months of the present season the company received for sale 40 carloads of fruit produced by members. Finally in these three months the co-operative department has delivered 1,003 carloads of hay, salt, firewood and other necessities, as against 96 in the farming season of 1913-1914.

The co-operative department, of which the principal business has been noted, handled altogether 1,002 cars in the thirteen months ending 31 August 1916 and its total turnover was \$749,668.

In order to meet the greatly increased demand for coal in the best possible conditions the company has begun to build coal-sheds at points where there are elevators and a demand among local shareholders. This has enabled an accumulation of large quantities of coal and the regulation of its price. The tentative enterprise has met with complete success, orders for 658 carloads to be delivered to farmers having been received on 15 November 1916, the date of the company's last general meeting.

The total amount of the company's assets on 31 August 1916 was \$1,509,496.

The profits for the year ending at that date were \$282,484, to which must be added a balance of \$36,229 from the previous year. Out of the total sum \$175,000 was paid into the general reserve ; a dividend of 8 per cent. was paid to the shareholders ; \$15,000 provided bonuses for the company's agents ; and the Dominion war tax absorbed \$60,000. A balance of more than \$23,000 remained to carry over to the next year.

§ 4. THE MANITOBA GRAIN GROWERS' GRAIN COMPANY

The year 1915-1916 was from almost every point of view the most satisfactory ever experienced by this company.

In its ten years of life this company has come to be very powerful. When formed on 1 September 1906 it could count certainly on only a few shareholders; on 31 April 1916 their number was 18,163. The paid-up capital has risen from \$5,000 to \$1,073,000. The profits of the first year were only \$790; last year they were more than \$570,000. The total quantity of grain which the company has handled in the ten years is more than 205 million bushels. The total profits amount to \$1,488,740 and the total dividends to \$550,000.

The volume of grain which passed through the company's elevators was, owing to the exceptional crop of a year ago, more than double that handled in the previous year, namely 14,737,687 bushels as against 6,540,923 bushels. In spite of this increase of about 125 per cent. the working costs increased by only 75 per cent., the total expenses in this department being \$437,695 as against \$285,897 in 1914-1915. The total revenue was \$597,303 as against \$292,288 for 1914-1915. Thus this department obtained a profit of \$161,607 as against one of \$7,390 for the previous year.

The company now owns fourteen elevators in the province of Manitoba.

The co-operative department, by sales of machinery and other goods, realized \$1,363,591 as against \$1,148,128 in the previous year, which gives an increase of 19 per cent. The chief increase was under the head of machinery, of which the sales, those in Calgary being excluded, realized \$278,205 as against about \$80,000 in 1914-1915.

The sales of machinery at Winnipeg and Regina were made up as follows:

Tillage tools	\$102,044.13
Miscellaneous machinery and supplies	83,664.67
Gas engines	13,889.80
Tractors	36,191.39
Vehicles	42,415.79

\$278,205.78

The other principal sales effected by the co-operative department were as follows:

Lumber	\$180,410
Millwork	23,729
Metal goods	10,756
Builders' supplies	46,120
Twine	520,373
Barbed wire	70,136
Woven wire	53,336
Posts	46,419
Coal	53,249
Flour	8,488
Apples	60,946

These sales realized altogether \$1,085,385. The total operations of the co-operative department yielded only a slight profit. The necessity of accumulating large stocks in order to meet demands punctually and to guard against the rise of prices due to the war placed the company in some difficulty.

A live stock department was formed during the year. Sales began on 1 March 1916: at the end of August 196 carloads of live stock had been handled, and the number handled in September and October was 302. This department is doing educational work in that it shows farmers how to form live stock shipping associations and make the greatest possible profit out of their stock.

The total expenses of all kinds amounted in 1915-1916 to \$994,997 and the gross income to \$1,566,422. The profit and loss account gives a balance of \$572,804, utilized as follows:

Dividend of 10 per cent.	\$100,500
War tax 1915-1916	104,381
Reserve	217,159
Carried over	150,763

On 31 August 1916 the amount of the reserve fund was \$600,000. Among the assets invested capital amounts to \$801,950: \$225,682 of this sum being invested in growing timber, and more than \$300,000 in town real estate, while the elevators are valued at more than \$250,000.

There is no doubt that the company is in an excellent position financially. Since it was founded its shareholders have always received a 10 per cent. dividend except in the first year when the dividend was 7 per cent. The shares have risen to 50 per cent. above their nominal value.

§ 5. THE FUSION OF TWO GREAT FARMERS' COMPANIES.

At the annual general meeting of the Manitoba Grain Growers' Grain Company, held at Winnipeg on 29 November 1916, a very important resolution was passed which marks a turning-point in agricultural organiza-

tion in Canada. On the proposal of the board of directors the shareholders agreed to the fusion of the company with the Alberta Farmers' Co-operative Elevator Company. The resultant company is known as the United Grain Growers, Limited.

For some years the means of advancing the interests of farmers in the vast region of the west, by grouping together their organizations and thus improving the working of these, had been studied. A year ago an attempt was made to federate the three great companies of which we have spoken, but this was a failure. The board of directors of the Alberta company there-upon proposed to merge their company and that of Manitoba. The detailed steps by which this measure was accomplished were approved by the shareholders of the Alberta company three weeks before the meeting of the Manitoba company.

In accordance with the scheme which was approved the Manitoba Grain Growers' Grain Company will be reorganized on a new basis, that namely of local groups which has already been adopted by the Alberta and Saskatchewan companies.

Each of these local groups will name delegates who will be sent to the general meeting and whose travelling costs will be paid by the company. The shareholders will therefore be much better represented in the general meetings than is the case under the system hitherto followed ; under which the large majority of shareholders present at the general meetings have been resident within a radius of from sixty to a hundred miles of Winnipeg, although the shareholders living in Manitoba are much less than half their total number, 7,500 living in Saskatchewan and the others in Alberta and British Columbia.

The capital in shares of the new company will be \$5,000,000

Its by-laws will shortly be presented for statutory sanction to the parliament at Ottawa.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

BRITISH INDIA.

THE PROGRESS OF CO-OPERATIVE SOCIETIES IN BARODA STATE.

The report of the registrar of Baroda State for 1914-15 shows a very considerable progress made by co-operative societies. The following table gives some details :

Kind of Societies	No. of Societies		No. of Members		Working Capital	
	1913-1914	1914-1915	1913-1914	1914-1915 ⁽¹⁾	1913-1914	1914-1915
					Rs. (r)	Rs.
Central	3	2	176	220	128,170	184,062
Agricultural	246	286	6,918	8,071	452,006	536,439
Non-agricultural . .	13	18	655	976	59,660	79,719
Total	262	306	7,749	9,267	639,836	800,220

(1) 1 rupee = 15 4d.

The registrar states that except in a few places no special efforts were made to organize new societies, but that the people came forward of their own accord, being generally influenced by the successful working of a society in their neighbourhood.

The reserve fund of all the societies amounted to Rs. 69,584 as against Rs. 44,500 in the previous year. The amount of loans granted was Rs. 586,566, having increased in the year by Rs. 73,358. Nearly one third of the loans were made for such ordinary agricultural purposes as the purchase of seed or manure and the payment of labourers' wages. Others were for the purchase of cattle and implements, the payment of land revenue and old debts, and trading, industrial and domestic purposes.

The non-credit societies include a milk supply society which supplies milk to a depot in the town, a milk consumers' society which distributes this milk to residents in the town, and an agricultural society which supplies water for purposes of irrigation.

The eighteen non-agricultural societies include five government servants' credit societies, eleven weavers' societies, a municipal scavengers' society and another society of this last type.

The registrar acknowledges great help received from the officers of the Revenue Department who were asked, by a special resolution passed by the Honourable Council, to forward the movement.

"If", he states, "the co-operative movement is to be developed, well organized efforts should be made to educate the farmers in the principles of co-operation. A hand-book on co-operation for use in primary schools has been prepared".

ITALY.

1. THE RESOLUTIONS OF THE NATIONAL MEETING OF THE AGRICULTURAL CO-OPERATIVE SOCIETIES AT MILAN. — *La Cooperazione Italiana* (*Italian Co-operation*), organ of the *Lega Nazionale delle Cooperative* (National League of Co-operative Societies), No. 1223, 22 December 1916.

On the initiative of the National League of Co-operative Societies there were held at Milan on the 17th and 18th of last December three national meetings of the co-operative societies of consumption, production, labour and agriculture (1). The last-named, which interest us most directly, dealt with agricultural and co-operative colonization, in relation to which the following motion was approved: "1) The meeting reaffirms its preceding resolutions in favour of giving a legal sanction, where the lands of public bodies are concerned, to letting these, on lease or otherwise, or selling them by preference to labourers' co-operative societies, such preference being analogous to that given to co-operative labour societies in public auctions, 2) The meeting declares the need to be urgent and immediate for public works of hydraulics destined to increase the area of land permitting of cultivation and to remove one of the more important causes of ill health and of the abandonment of much land. It demands also that there should be agricultural enterprise — internal colonization — the words being understood in their largest sense. The extension of the legislation for the Roman Campagna to all lands in which there is public agricultural enterprise is the first and fundamental action which the meeting demands

(1) A few days earlier at Naples the meeting of the co-operative societies of the south was held, and passed resolutions for the constitution of provincial or district federations of the various kinds of co-operative societies, which should help these societies in matters of technique, book-keeping or administration, or legally.

that the government should take, requisitioning uncultivated land and bringing it within such extension. 3) The necessity of increasing agricultural production, the need for employing on agriculture much of the labour which in the past emigrated, and the recognized opportunity for reconstituting collective agriculture show the close relationship between internal colonization and co-operative labour and production (collective farms). Thus wherever the private capitalist might withdraw, because profits were scarce or non-existent, the association of labourers, which would aim above all at a large gross return to be directly consumed by its members, would have every opportunity to enter and to intensify agriculture. 4) The meeting asks that a large part of the lands which will gradually be bought up, be given to the agricultural co-operative societies. These involve a minimum initial cost, and afford, as compared with land settled for centuries, more employment for labour, and employment both more and more lastingly remunerative. For this end the meeting passed a special resolution addressed to the government and the competent bodies. 5) The meeting considered that for the social and economic ends towards which the collective farms were directed, joint and divided management of the lands taken over were equally to be recommended, so long as under one and the other system more intimate and fruitful association linked individual to social activity and vice versa, and so long as there were no lack of technical knowledge or of credit. The essential point was that the land should be given to the labourers, who always had cultivated it and who would cultivate it more and better, for themselves and others, on the day on which they would by their associated efforts derive from it a larger profit". An order of the day was then approved by which, since the movement for agricultural co-operation was assuming in Italy a steadily growing importance, the National Institute of Credit for Co-operation (*Istituto Nazionale di Credito per la Cooperazione*) was invited to form an agricultural office which should co-ordinate and direct the action and development of agricultural co-operative societies among labourers. In accordance with this vote such an office has already been founded (1) by the institute at Bologna and aims at giving assistance and technical advice to these societies.

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2. THE COLLECTIVE FARM OF SAN GIOVANNI IN CROCE. — *La Cooperazione Italiana*, Milan, no. 1220, 1 December 1916.

The peasants of San Giovanni in Croce (Cremona), a centre in which class organization, completed by a consumers' co-operative society, has had a noteworthy development, have recently formed a collective farm, undertaking the management of about 800 Cremonese perches (2) of land belonging

(1) See *La Cooperazione Italiana*, Milan, no. 1225, 5 January 1917.

(2) 1 Cremonese perch = 966.45 square yards.

to the Educational Institutes of Cremona, at a fixed rent of 16.50 liras (1) the perch. To provide live and other stock — more than fifty heads of live stock have already been acquired — the Society has advanced more than fifty thousand liras. The work which will be collectively directed, will be executed mainly by casual labour supplied by the members. Only two families have been engaged permanently, and they will have to attend principally to the management of the live stock.

The direction of the work is entrusted to an expert, chosen from among the members, who will manage the farm "according to the criteria of the most rigid scrupulosity".

Wages will be fixed according to the contracts locally customary, all rules as to insurance against accidents, disablement and old age being especially observed.

The administrations of the religious bodies of Cremona have decided to substitute, whenever any of the leases of their landed property expire, a co-operative society of cultivators for the individual farmer. Thus in this province there is a distinct movement towards collective leases, which should meet with the success obtained by similar enterprises in the provinces of Ravenna, Reggio, Emilia, Mantua.

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3. THE "SOCIETÀ ANONIMA COOPERATIVA PER L'ESPORTAZIONE DEI PRODOTTI AGRICOLI" (2) OF JESI IN 1915-1916. — Report for 1915-1916 approved by the general meeting of members on 25 June 1916. Jesi, 1916.

This society has two sections, one for the export abroad of agricultural products, the other for the acquisition and the sale to members of articles useful to agriculture. In 1915-1916 it sold merchandise having an aggregate value of 931,850.66 liras, distributed as follows:

Chemical manures	liras	498,842.55
Meadow and various seeds.	"	258,732.87
Anti-cryptogamous substances.	"	130,658.96
Agricultural and various machines.	"	24,308.68
Fodder for live stock.	"	19,307.60

Total liras 931,850.66

(1) 1 lira = 9 $\frac{3}{5}$ d at par.

(2) Limited Liability Co-operative Society for the Export of Agricultural Products.

As regards the section for export this could not discharge its function owing to the embargo on foreign export. The cauliflowers produced were however sold at home in the markets of Upper Italy, to which 715,790 of them or 85 car-loads, having a total value of 60,534 liras, were sent. In the same year a new dryer for cocoons was installed by the society, so that the two driers which now exist fully satisfy the demands of members. The society's sales have increased steadily, having realized in 1910-1911 a value of 148,369 liras, in 1911-1912 one of 850,976 liras, in 1912-13 one of 1,112,959 liras, in 1913-1914 one of 1,295,731 liras, and in 1914-15 one of 1,234,136 liras.

The society's capital reached at the end of the year in question 159,218.82 liras, made up as follows: capital in shares 84,250 liras; ordinary reserve fund 55,540.49 liras; extraordinary reserve fund 19,428.33 liras. The net profits — 55,468.80 liras — were distributed as follows: a) to the shares 5 per cent. of the paid-up capital, 4,205.90 liras; b) to the ordinary reserve 70 per cent. of the residue, 35,884.66 liras; c) to the purchasers 20 per cent., 10,252.76 liras; and finally d) 10 per cent. was set aside to provide for new initiative, 5,126.38 liras.

The society was able to reach such results thanks to the help obtained from local credit agencies, particularly the *Banca Popolare Cooperativa* (Popular Co-operative Bank).

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4. THE ACTIVITY OF THE OFFICE OF LEGAL ADVICE OF THE "LEGA NAZIONALE DELLE COOPERATIVE". — *La Cooperazione Italiana*, organ of this league, Milan, no. 1225, 5 January 1917.

Among the multiple services rendered by this Milanese National League of Co-operative Societies to its federated societies one of the best organized and certainly the most useful is that of affording legal advice. This service is entrusted to an expert who has summarized the activity of his office in the following table:

Year	No. of Affairs dealt with	Written Opinions	Oral Consultations	Local Enquiries	Newspaper Articles	Co-operative Societies					Mutual
						Consumption	Labour	Agricultural	Building	Mixed	
1912	1316	1097	160	—	51	770	293	37	58	37	127
1913	1247	1068	179	—	—	628	371	—	68	—	137
1914	1269	1103	139	10	17	634	296	86	38	86	157
1915	1168	969	176	7	23	534	319	43	73	—	142
1916	859	744	100	—	15	365	204	37	45	—	93

It is seen that in spite of the difficulties of the present time the National League of Co-operative Societies neglects nothing in order to continue its work of helping and safeguarding the interests of these societies which now number more than 7,000.

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5. THE FORMATION OF THE "SOCIETÀ DEGLI ENOTECNICI ITALIANI". — Communicated by the Society.

On the basis of the votes of the National Congress of Experts in Wine, held last summer at Voghera, this "Society of Italian Experts in Wine", has been definitely formed. It has headquarters at Caselmonferrato and is intended to include all licentiates of the higher technical schools of wine production in Alba, Avellino, Cagliari, Catania and Conegliano. The society's aim, beyond that of defending trade interests, is to promote and favour the technical and economic progress of viticulture and wine production in Italy, where these industries represent more than seven thousand million liras of invested capital and employ more than two million citizens.

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6. THE DEVELOPMENT OF THE "UNIONE COOPERATIVA DI MILANO". — *Storia dell'Unione Cooperativa*, Milan, Tipografia dell'Unione Cooperativa, 1916.

This "Co-operative Union of Milan", the greatest consumers' co-operative society in Italy, has recently completed its thirtieth year of life. To celebrate the occasion it has published an interesting report which treats of its first origins and, year by year, of its work, its initiative and the results it has obtained. The facts are resumed in the following table, taken from the report :

The Growth of the Co-operative Union of Milan.

Year	Members	Paid-up Capital	Reserve	Total Sales	Credit Balance
	Number	Liras	Liras	Liras	Liras
—	396	7,941.00	—	7,005.98	1,058.16
1887-1888	613	29,908.00	1,600.25	35,013.77	10,575.73
1888-1889	874	138,261.00	6,503.27	231,026.91	24,836.03
1889-1890	2,127	378,812.00	18,758.34	681,539.01	82,250.50
1890-1891	3,412	687,150.00	39,860.09	1,397,475.02	141,414.37
1891-1892	3,761	828,053.00	82,917.02	2,462,571.52	168,653.23
1892-1893	3,910	909,343.00	129,609.65	2,741,932.68	182,473.50
1893-1894	3,938	918,362.00	162,358.51	2,949,770.76	197,266.62
1894-1895	4,083	935,312.00	221,276.27	3,254,531.04	216,275.75
1895-1896	4,292	1,004,960.00	273,974.39	3,678,145.69	249,273.11
1896-1897	4,556	1,107,800.00	362,334.18	4,765,115.28	300,379.18
1897-1898	4,867	1,225,163.00	439,612.20	4,908,920.01	314,783.77
1898-1899	5,053	1,344,836.00	520,134.25	5,217,653.08	218,811.90
1899-1900	5,164	1,447,581.00	580,962.80	5,755,519.01	295,336.23
1900-1901	5,270	1,541,149.00	635,076.54	6,297,567.16	310,646.67
1901-1902	5,389	1,637,025.00	689,960.68	6,546,707.98	310,288.30
1902-1903	5,632	1,766,333.00	780,988.44	6,713,256.96	324,768.27
1903-1904	7,365	2,217,574.00	936,533.10	7,025,128.07	345,049.93
1904-1905	9,188	2,840,755.00	1,180,417.00	7,388,420.89	426,502.22
1905-1906	11,481	3,848,609.00	1,454,252.35	8,375,827.64	522,162.20
1906-1907	12,958	4,738,124.80	1,799,879.02	10,467,999.00	689,162.25
1907-1908	13,880	5,486,599.05	2,091,120.01	10,279,885.49	656,799.86
1908-1909	14,114	5,733,474.95	2,240,574.35	10,570,376.96	650,760.89
1909-1910	14,306	5,923,756.40	2,373,297.97	10,891,623.33	726,447.28
1910-1911	14,566	6,193,854.44	2,565,770.90	10,732,609.00	632,601.51
1911-1912	14,582	6,313,431.20	2,687,571.76	11,001,337.23	651,083.17
1912-1913	14,526	6,343,241.90	2,732,171.56	11,089,710.95	549,719.48
1913-1914	14,825	6,282,998.60	2,488,482.67	10,554,268.29	409,962.02
1914-1915	15,004	6,301,739.89	2,396,619.80	10,887,895.23	251,791.59
1915-1916	15,087	6,294,705.64	2,425,735.20	14,896,397.77	621,579.41

The total profits realized in the period considered amounted to 10,482,713 liras, distributed as follows: interest, 4,765,143 liras; reserve

1,018,297 liras; savings 3,172,506 liras; administrative council 320,328 liras; thrift fund 1,087,060 liras; research fund, 107,407 liras.

The union occupies a building in which it sells stuffs, shoes, hats, linen, clothes, carpets, furniture, etc., and includes numerous guilds devoted to the various kinds of manufacture. It comprises forty-nine sections for the sale of the different kinds of food and wine, and five depots for combustibles. It possesses a great warehouse for wine, capable of receiving 50,000 hectolitres (1) and provided with the most modern and perfect machinery. It has premises for treating pig-flesh in which all such products sold in its various branches — amounting last year to a value of 773,036 liras — are prepared; and also a confectioner's shop, three restaurants, a printing-press and a book-bindery. In May 1914 it opened a new department — the deposit bank which has already received savings amounting to 575,629 liras, on which interest is paid at the rate of $4\frac{1}{2}$ per cent. Finally beside the gates of Milan it has made the Milanino, Italy's first garden-city.

The union recounts its activity in its own monthly review, *L'Idea Cooperativa*, which it distributes to its members without charge.

RUSSIA.

THE FINNISH SUPERINTENDING SOCIETIES IN THE YEARS 1913-1915. — *För landtmannahem*: Helsingfors, September 1916.

The Administration of Agriculture has published a report on the activity of the Finnish superintending societies in the year 1915.

In 1915, 65,648 cows yielded on an average 1,926 kilogrammes (2) of milk each, furnishing 75.34 kilogrammes of butter (3.91 per cent); in 1914 the average yield of each of 60,589 cows was 2,017 kilogrammes of milk, which furnished 77.85 kilogrammes of butter (3.86 per cent.); in 1913 the average yield of each of 43,392 cows was 2,085.6 kilogrammes of milk and 80.66 kilogrammes of butter (3.86 per cent.)

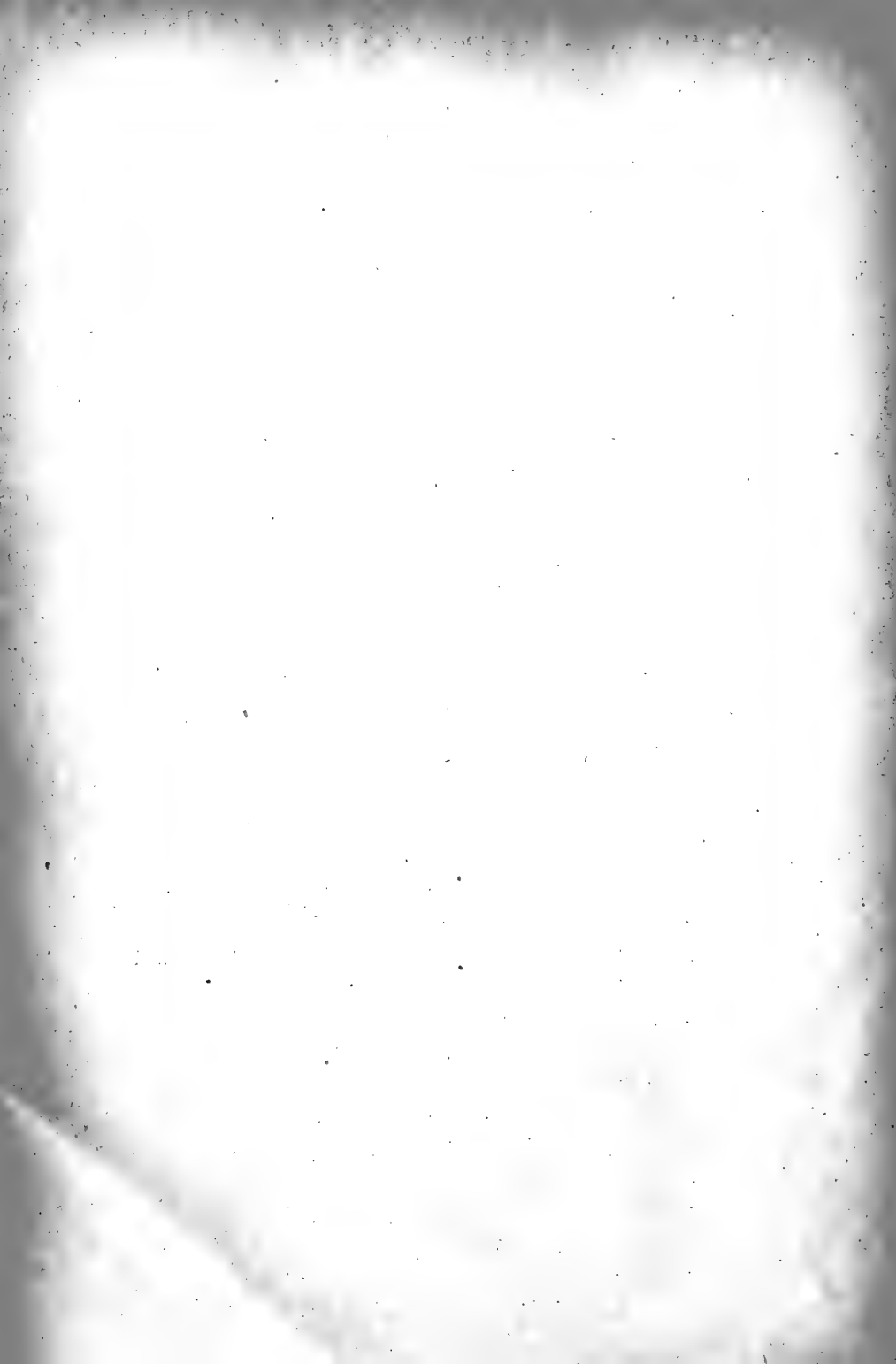
The largest gross yield occurred in the district of Lojo (Nyland province) where each of 437 cows gave on an average 3,251 kilogrammes of milk and 121.43 kilogrammes of butter (3.73 per cent.) for a consumption of 2,281 units of forage. In two other districts of the province of Nyland the average for one cow was more than 100 kilogrammes of butter: namely in the district of Ekenäs — 2,927 kilogrammes of milk and 106.38 kilogrammes of butter (3.65 per cent.) for a consumption of 1,983 units of forage; and in the district of East Helsing — 2,811 kilogrammes of milk

(1) 1 hectolitre = 0.344 quarters.

(2) 1 kilogramme = $2\frac{1}{5}$ lbs.

and 103.15 of butter (3.67 per cent.) for a consumption of 2,073 units of forage.

In the whole country 130.2 kilogrammes of milk were, on an average obtained for 100 units of forage in 1914 and 134.4 kilogrammes in 1913. Thus the production per hundred units has diminished, the diminution being accentuated within the sphere of certain societies. In 1915 the consumption of forage decreased almost universally and the forage consumed consisted in a larger proportion than previously of oil-cakes. These two circumstances prove that the efforts made to diminish the use of cereals as forage have not been fruitless. On the other hand the excessive restriction of the consumption of forage in some districts seems to have caused a decrease in production which is too large to be economically profitable.



Part II: Insurance and Thrift

URUGUAY.

THE STATE BANK OF INSURANCE AND INSURANCE AGAINST HAIL.

SOURCES :

RELACIÓN ENVIADA POR LA OFICINA DE ESTADÍSTICA Y PUBLICACIONES DEL MINISTERIO DE INDUSTRIAS DEL URUGUAY AL INSTITUTO INTERNACIONAL DE AGRICULTURA SOBRE LA SECCIÓN GRANIZO DEL BANCO DE SEGUROS DEL ESTADO, EN 7 OCTUBRE DE 1916 (*Report sent by the Office of Statistics and Publications of the Ministry of Industry of Uruguay to the International Institute of Agriculture on the Hail Department of the State Insurance Bank on 7 October 1916*).

LEY DE CREACIÓN DEL BANCO DE SEGUROS DEL ESTADO (*Law creating the State Insurance Bank*)
Talleres de A. Barreiro y Ramos. Montevideo, 1912.

REGLAMENTO GENERAL DEL BANCO DE SEGUROS DEL ESTADO (*General Rules of the State Insurance Bank*), *ibid.* 1912.

§ I. THE STATE INSURANCE BANK.

The State Insurance Bank was created by the law of 27 December 1911. Its object was to practise all forms of insurance covered by the State's monopoly and instituted by the relevant law.

The bank's capital consists of three million pesos (1) in public debt bonds bearing interest at the rate of 5 per cent. annually and 1 per cent. of amortization. The bank's capital and reserve fund are the special guarantee of its operations, which are however also guaranteed by the State

(1) 1 peso = about 4s 3d at par.

and for which the State is responsible. The reserve fund is formed by the bank's annual balance of liquid capital.

This bank's insurance transactions are exempt from all taxation, as is its real estate.

The State Insurance Bank is held to be incorporated and has therefore to exercise rights and fulfil obligations. Its legal headquarters and administrative centre are at Montevideo, but it may have agencies where it judges that their foundation is to the interest of itself and its clients. It is administered by a board of directors consisting of a chairman and six voting members.

The law already mentioned of 27 December 1911 declared that contracts for life insurance and insurance against fire and the accidents of labour were the State's monopoly, and that the State could also undertake insurance of other kinds, but must in every case and with regard to every class of insurance fix by decree the date at which its monopoly should take effect. In order to establish its monopoly in each branch of insurance the State may acquire the paper belonging to existing companies or agencies and substitute itself for them in respect of all their rights and obligations.

Already in its first year of activity, which ended on 31 December 1912, the State Insurance Bank undertook — in addition to the transactions covered by its legal monopoly of life, fire and accident insurance — other branches of insurance, among them one which has an especial interest for us, namely insurance against hail.

To insure standing crops against damage by hail an especial department has been formed in this bank, and it employs agents and a competent propaganda staff who are distributed throughout the country.

This department acts autonomously, as do all others in the bank, under the direction and control of the council, and in the short time for which it has been at work it has already given proof of singular activity, although hitherto agricultural conditions have in general been adverse. Before we briefly indicate the results it has obtained it will be well to show the principal terms of contracts for insurance of this description.

§ 2. TERMS OF A POLICY OF INSURANCE AGAINST HAIL.

For the period fixed in each contract the State Insurance Bank insures the value of standing crops, that is of products actually borne by plants which are still enrooted, against damage caused by hail, all damage due to causes preceding, accompanying or following on the fall of hail being expressly excluded.

Insurance is applied for in writing on the bank's forms, and the application is an integral part of the policy and must be accompanied by the amount of the due premium.

The bank becomes responsible for risks from midday on the day on which the policy is drawn up until the crops are cut or uprooted, within the period fixed in every case. No prorogation will be granted in the case of any crop within regions in which damage has been done by frost, or which have been invaded by winged locusts or threatened by them in their wingless state. In every case an insured person is obliged to provide the agricultural work which the character and the condition of his crops require and on no pretext to abandon insured crops. Anyone applying for insurance must insure all his crops of the kind which he proposes to insure. He must therefore, when applying, declare to the bank whether he has other crops of the same kind, which are uninsured or which are insured by the bank or otherwise. If a part of the crops which he desires to insure be in a bad state he may insure only such remaining part as is in a good state. The signatory of an application for insurance must therefore specify clearly, in the plan which he annexes to his application, what part of his fields he excludes from insurance and the area of that which he wishes to insure. After he has partially insured a crop he will be obliged to insure at the bank such excluded part thereof as may recover from its bad state. On pain of forfeiting his insurance he is bound not to cut that part of his crop which has for any reason been excluded from insurance, with the bank's consent, until that part of it which the bank has insured has been completely harvested. Crops insured by the bank may not be insured elsewhere without notification to the bank, even if several persons have an interest in them. When the bank has thus been notified it will have a *pro rata* responsibility, with the other agencies insuring a given crop at the time damage is incurred. When one crop is insured by several companies any damage incurred will be estimated by an inspector whom one of the interested companies will nominate.

If after an insurance contract has been concluded the insured crop pass into the possession of another person, the insured person will inform the bank in order that the fact may be noted on the policy. The application should contain a statement as to the total amount at which the applicant values the crop to be insured by the bank, wholly or partially as the applicant may desire.

Crops already damaged by hail may not be proposed for insurance until ten days have elapsed from the time at which the damage was incurred, and the applicant desiring to insure them must insert in his application a statement as to the amount of the past damage and the date at which it was incurred.

The insured person may not claim indemnities from the bank for damages due to hail unless these exceed in the case of each crop 6 per cent. of the total insured value. The notice of an occurrence of loss must state its date and hour and the kind of crop injured, and must be handed to the local agent and telegraphed to the management of the bank at Montevideo no later than twenty-four hours after such occurrence. This first notice will not however be held valid unless the insured person declare in writing,

on the bank's forms which are annexed to the policy and after a minute inspection, the value of the loss incurred, the state of the crops, etc.

This declaration must be given to the local agent for immediate transmission to the management at Montevideo, no later than forty-eight hours after the loss has been incurred. The insured person must exact from the agent for such notice and declaration a receipt which specifies the date and hour of their delivery.

Until the bank fixes the amount of the indemnity and agrees to grant it the insured person may not touch the damaged crops, on pain of losing all right to indemnification. If a crop have been damaged by hail at the time at which the grain was ripe the insured person will, failing the bank's order to the contrary, be obliged when he has made his declaration to harvest or continue to harvest the damaged grain, leaving however such ears standing as indicate the limits of the crop and form a basis for the bank's estimate.

In order that losses may be ascertained and estimated the bank, on pain of an annulment of insurance, insists on :

1. The presentation of the policy and the receipt for the notice and declaration of loss.
2. A declaration by the insured person or his representative, on the demand of the bank's inspector, as to the day and the hour of the inspection.
3. Exact proof that the injured crop is identical with the insured crop.
4. Detailed information as to :
 - a) when and how often the crops have been damaged by hail ;
 - b) whether the insured person's declared right to insure and his other declarations have been genuine ;
 - c) whether or not the work necessary to a good crop have been performed.
- 5) The exact determination of :
 - a) the area and situation of the damaged part ;
 - b) the yield which might have been obtained from the insured crops if they had ripened, until the time at which the loss occurred ;
 - c) the percentage of this yield destroyed by the hail.

The bank can in no case be responsible for more than the insured sum. If after one or more occurrences of recognized loss a part of the crops be again injured, the total damage will be estimated without taking into account previous estimates of loss ; and if the insured person have already been compensated for this loss or these losses, or the sum due for anterior losses have already been fixed, the sums so paid will be deducted from the total amount granted as an indemnity in accordance with the last estimate.

The bank has the right to commission one or more persons to inspect damaged crops once or oftener, or if necessary to delay inspection and valuation. The insured person must furnish the necessary facilities for inspection and the estimate of losses.

In case of lack of unanimity in the estimate of damage by the bank's inspector and the insured person, the former may choose as to whether experts will be nominated or the matter delayed until the harvest or later.

In the latter case the general yield of neighbouring crops will be taken into account, the average furnishing the basis for an estimate. If on the other hand it be decided to have recourse to experts, who will be commissioned to settle the dispute amicably, the amount of the loss will be fixed by two experts, the respective nominees of the disputing parties, and they will agree together on the basis of the terms of the policy. If they fail to agree the matter will be decided by a third expert whom they will nominate, unless they cannot agree on his nomination when decision will rest with one of three experts proposed to the insured person by the bank. The decision taken by the two experts, or failing them by a third, will be final and there will be no appeal against it, whether or not the third expert's decision agree with that of either of the two first.

The amount of the loss incurred will not be a matter to be discussed in the courts. The costs of an estimate which the two interested parties accept will be met by the bank. Honoraria and costs due to expert valuers and those deciding disputes will be reckoned separately, and should be partly paid by that disputant whose original estimate is furthest removed from the final estimate.

If an estimate of damage do not give rise to an indemnity, the insured person's claim not being justified, the insured person must pay the costs of inspection and the attendant travelling costs, which expenses must not ever be computed at less than forty pesos. The policy will be declared null and void and the amount of the premium ensured to the bank if the amount of such expenses be not paid within eight days in specie or by the remittance of a guaranteed note. If no agreement be reached as to the estimate, experts will be nominated to settle the dispute amicably or a second inspection will be made when the stipulated costs have been paid in advance.

The bank reserves the right to refuse an application for insurance within fifteen days of the date at which it is signed, returning in this case the amount of the premium. Similarly it may at any moment annul a policy after giving eight days' notice and returning the premium or a proportion thereof, the proportion retained corresponding to any losses sustained which it may have recognized.

§ 3. THE ACTIVITY OF THE DEPARTMENT FOR INSURANCE AGAINST HAIL.

The development of this department in the short period which has elapsed since its foundation is due not only to the exercise of a monopoly in insurance against hail, but also to the intensive propaganda which the bank's agents have carried out in the country in support of this branch of agricultural insurance. It has come to be almost twice as productive as it was formerly, when it was practised by private companies.

The private companies who covered this risk were "La Nacional"

and "La Rural". The bank bought their paper on 9 July and 9 September 1913, for 10,000 and 16,000 pesos, respectively.

The hail department was created in February 1912. As has been seen the monopoly in this form of insurance was instituted at the end of 1913, by means of the purchase of the paper of the private companies with which paper business was begun. The first results obtained were certainly most encouraging, the receipts of the hail department in the form of premiums reaching in 1912 61 per cent. of the product of this branch of insurance in the whole country, namely 47,463 pesos as against 30,000 pesos received by the private companies.

TABLE I. *Business of the Hail Department from 1912 to 1915.*

Year	Insured Capital Pesos	Number	Premiums	Total Amount Pesos	Indemnities Percentage of premiums received
			Amount Pesos		
1912	1,537,029	1,543	47,463	8,977	19.22
1913	3,023,160	4,031	93,637	27,893	29.77
1914	1,065,697	1,618	43,271	10,259	24.63
1915	2,485,309	3,867	77,011	2,410	3.13
Total	8,111,195	11,059	261,418	49,539	18.95

This table shows the progress of the business of the hail department from 1912 to 1915, inclusively. But it would be difficult to estimate this institution's activity only from these figures. Thus as regards 1912, this year was, in the first place, that in which business was begun; secondly it was incomplete since the hail department was not founded until February; and lastly it was that in which the monopoly of this branch of insurance did not yet exist. After this monopoly was established in 1913 much higher figures were reached. It would however be very risky to accept the data for this year unreservedly as an index to the institution's activity in the matter of hail insurance; for it was in this year that the purchase of the paper of the companies, of which we have spoken, was effected, and the published statistics do not specify what revenue was obtained by the bank's department exclusively, and what emanated from these companies. The data in question therefore evidently indicate larger sums than would such as truly represented the department's activity in this year. The results obtained in 1914, the year of the application of the monopoly, which might have given us the normal level, are, on the contrary, furthest removed from it. The table shows that the figures for 1914 have undergone a considerable reduction as compared with those of other years. The

reason for this is that the meteorological conditions prevalent throughout the ordinary seed time of 1914 made the year quite abnormal. Very abundant atmospheric precipitations placed extraordinary difficulties in the way of agricultural work in several districts and entirely prevented it in others. All this brought about a general disturbance of agricultural production in its initial period, and prevented the hail department of the State Insurance Bank from the full activity which would have characterized it had sowing been effected abundantly and rapidly. On the other hand 1915 was distinguished in Uruguay by abundant agricultural production, especially of corn, and in consequence the business of the hail department was steady and prosperous. The data for 1915, as given in the table, may be taken most nearly to represent this institution's normal course of business, and thus it is possible to see the development accomplished.

Other considerations also follow on an examination of this table. If the amount of the premiums received be compared with that of the indemnities paid, it will be seen that when 30 per cent. has been deducted, as the amount of costs of administration, there remains an appreciable balance which hitherto has gone to swell the bank's precautionary fund.

Table II shows the sums assigned to the reserve fund of the hail department of the State Insurance Bank, the progress of which fund best shows the good working of the institution and the solidity of its business.

TABLE II — *Sums assigned to the Reserve Fund of the Hail Department.*

Year	Amount in Pesos
1912	5,653
1913	2,500
1914	19,000
1915	30,000

We end these brief notes on the activity of the Hail Department by Table III, which shows how the business of 1913 was distributed among the different kinds of crops insured :

TABLE III. *Distribution of Business among the various Crops insured in 1913.*

Crops	Cultivated Area	Area insured by the Bank	Insured Capital	Premiums Received	Indemnities Paid
	Hectares	Hectares	Pesos	Pesos	Pesos
Corn	330,252	129,577	2,371,026	71,131	24,550
Linen	56,853	25,133	524,535	15,736	2,964
Oats	20,412	3,832	66,158	3,308	171
Canary Grass	930	494	15,237	609	56
Barley	1,389	274	5,132	256	—
Vines	6,103	179	43,872	2,633	172
Total . . .	415,979	159,489	3,025,960	93,673	27,293

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES.

ALGERIA AND REGENCY OF TUNIS.

THE CENTRAL ALGERIAN AND TUNISIAN FUND FOR AGRICULTURAL REINSUR- ANCE IN 1915.

From the reports submitted to the extraordinary general meeting of 26 April 1916 we take the following figures as to the progress of the fund in 1915 :

1. *Insurance against Hail.*

	Francs (1)
Policies in force in 1915.	1,589
» » » » 1914	1,369
i. e. an increase of	220
Insured value in 1915	40,842,638
» » » » 1914	34,332,502
i. e. an increase of	6,510,136
Assessments in 1915	582,158
» » » » 1914	548,785
i. e. an increase of	33,373

The cases of payment of indemnities numbered 317 and their amount was 1,162,938 francs.

2. *Insurance against Mortality among Live Stock.* — For the fifteen federated funds for insurance against mortality among live stock the results for 1915 were as follows :

Number of policies.	197	
Value of insured animals	1,193,475	francs
Assessments.	33,388	»
Indemnities.	28,186	»
Percentage of assessments constituted by indemnities.	84	%

(1) 1 franc = 9 ³/₈ d at par.

3. *Insurance against Fire.*

	1912 — francs	1913 — francs	1914 — francs	1915 — francs
Number of policies	342	1,086	1,192	1,495
Insured value	5,488,043	19,112,523	23,899,851	37,364,682
Net assessments	45,592	146,788	174,262	281,419
Indemnities paid	31,938	83,147	83,454	120,245
Percentage of assessments constituted by indem- nities	70 %	57 %	48 %	43 %

FRANCE.

THE MUTUAL AGRICULTURAL FIRE INSURANCE SOCIETY OF THE EAST ON 1 JANUARY 1916. — *Annales de la Mutualité et de la Coopération agricoles*, Paris, single issue of 1916.

On 1 January 1916 the Mutual Agricultural Fire Insurance Society of the East reinsured 849 communal funds, distributed among the funds of the district as follows :

Haute-Marne	438
Vosges	131
Jura	76
Haute-Saône	73
Meurthe-et-Moselle	62
Doubs	52
Saône-et-Loire	17

The number of these communal societies increased progressively, influenced by the great advantages they afford to agricultural labourers. The following table shows this development, of which the regularity is worthy of emphasis :

On 1 December	1905	10	societies
On 1 January	1906	115	»
»	1907	425	»
»	1908	502	»
»	1909	560	»
»	1910	637	»
»	1911	762	»
»	1912	778	»
»	1913	815	»
»	1914	848	»
»	1915	849	»
»	1916	849	»

The number of members effectively insured is proportionate to the number of policies, which has successively reached the following levels :

On 1 January 1906	21	policies
" 1907	1,824	"
" 1908	3,522	"
" 1909	5,325	"
" 1910	7,191	"
" 1911	9,492	"
" 1912	12,140	"
" 1913	14,617	"
" 1914	17,252	"
" 1915	19,536	"
" 1916	21,143	"

The capital guaranteed by the mutual society has increased like the number of the insured, that is to say in proportion to the subscribed policies. This capital, which is the chief asset of the 20,000 members, reached annually the following amounts :

On 1 January 1906	283,100	fr.
" 1907	14,901,025	"
" 1908	29,592,477	"
" 1909	44,436,428	"
" 1910	60,872,485	"
" 1911	79,944,485	"
" 1912	101,742,995	"
" 1913	123,585,836	"
" 1914	146,113,616	"
" 1915	168,186,436	"
" 1916	184,829,266	"

The net premiums received were as follows :

In 1905	45.75	fr.
In 1906	12,673.25	"
In 1907	32,658.75	"
In 1908	50,467.58	"
In 1909	68,338.95	"
In 1910	89,120.12	"
In 1911	112,841.40	"
In 1912	138,890.86	"
In 1913	164,435.60	"
In 1914	188,853.60	"
In 1915	207,573.30	"

The amount of indemnities paid for fires was :

In 1905	0.00	fr.
In 1906	11,543.70	"
In 1907	25,257.40	"
In 1908	39,287.80	"
In 1909	20,485.45	"
In 1910	36,656.45	"
In 1911	61,387.50	"
In 1912	43,069.25	"
In 1913	68,875.50	"
In 1914	150,573.30	"
In 1915	94,133.94	"

ITALY.

1. THE PROPOSALS OF SENATOR CONTI'S LAW FOR COMPELLING THE INSURANCE OF LAND AGAINST THE ACCIDENTS OF PEASANTS' LABOUR. — *Senato del Regno. Legislatura XXIV 1st session 1913-1916. Documenti : no. 317.*

In the sessions of 12 and 16 December 1916, that is to say almost simultaneously, two proposed laws for rendering insurance against the accidents of agriculture compulsory were considered and developed in the Senate and the Chamber of Deputies (1).

One of these is due to the initiative of the deputies Borromeo, Venino and Belotti, the other to that of Senator Conti. We have already dealt with the former (2). Although the ideas of the proposer of the second scheme are fortunately already well known we will recall its basic principles :

(1) In connection with the problem of insurance against the accidents of agricultural labour the General Confederation of Labour recently passed the following order of the day : " The directing council of the General Confederation of Labour affirms anew its previously expressed wishes as to the necessity of a complete insurance of labour against sickness, disablement and old age, in order to complete the accident insurance. The council asks the government to promulgate the promised law as to agricultural accidents, and in it to take into account the chief desires expressed on various occasions by the organizations, namely : a) that insurance be compulsory and protect without distinction all labourers on the soil and all agricultural enterprise attaching to it, including small proprietor cultivators ; b) that the right of agricultural labourers to insurance against temporary disablement be recognized ; c) that the insurance be entrusted to mixed and obligatory unions and completed by reinsurance with the National Accidents Fund ; d) that when the law as to agricultural accidents is promulgated labour be given juster representation on the council and committee of the National Accidents Fund ».

Other desires for compulsory insurance against agricultural accidents were recently formulated in the meeting of representatives of the organization of the agricultural labourers of the province of Reggio and Emilia — who asked that such insurance should be entrusted to the National Accidents Fund — and by the agricultural commission of the League of Socialist Communes.

(2) *International Review of Agricultural Economics*, June 1916, pp. 61 et seq.

1) Insurance against the accidents of labour is made a burden on land as constituting an inherent obligation of proprietorship. But this principle is neither absolute nor general. Exceptions are made in favour of a property held on lease, in the case of which the obligation and liability to insure devolve on any lessee who has undertaken cultivation in which the proprietor is not interested.

2) Insurance is entirely the responsibility of the proprietor if he cultivate his land or realize its value directly. It is the responsibility of the lessee if the land be let. If the land be granted on the system of *métayage* or another profit sharing system, the costs of insurance are divided between the proprietor and the occupier or *métayer*, the division being equal if products be shared equally. If all products be not shared exactly equally, two thirds of the insurance premium are charged to the landowner and one third to the *métayer* or occupier.

3) Insurance, saving in the exceptional cases enumerated under 4), is applicable without distinction to all agricultural labourers, including the peasants — men and women — who are constantly or temporarily employed on any work indispensable to tilth, agricultural production and farming, including such works as, owing to their necessary connection with and dependence on the production of a property, cannot be considered to be other than agricultural, and those habitually or exceptionally practised in dwellings, farms, dairies, presses, cellars, cisterns, and every other kind of labour of an agricultural character, if it be indispensable to tilth and agricultural production.

4) Insurance is not compulsory for peasants of either sex under thirteen and over seventy years old. Such peasants if employed on works already contemplated by the law on accidents in industries and enterprises (unified text of 31 January 1904 no. 51) will still be insured according to the terms of that law.

5) There can be no indemnifications except in the case of accidents which result in death or permanent disability, entire or partial, due to a traumatic cause consequent on work.

6) Notice must be given of every accident by the victim or his family, within five days of its occurrence, to the owner or lessee of the property. If such notice be not thus given the injury will be taken not to have been caused by the work,

7) A workman who is the victim of a simple accident must, if requested to do so by the insuring establishment, remain in a hospital for the time needed to determine the causes of the accident, in order to hasten his cure and diminish the accident's consequences. If he refuse unjustifiably to do this he loses his right to any indemnity.

8) The amount of the indemnity is 2,500 liras (1) in the cases both of death and of permanent and absolute disablement, but in the case of death it is reduced to 1000 liras if the deceased be not married and have no family to maintain, and is paid to his heirs.

9) A request for the revision of an indemnity is not acceded to unless it be proved that the first payment was made erroneously or unless the victim's physical condition be further modified as a result of the accident. Such request may be made only once, and not earlier than three months — or one month in the case of a death — after the payment of the indemnity.

10) Action to obtain the indemnity must be taken within six months after the occurrence of the accident as determined by the certificate and the judgement of the magistrate.

11) The principle of free choice of an insuring establishment is maintained. It is included in the law already mentioned, as to the accidents of industrial labour.

12) The extent of the property in relation to its various crops, all of which must be mentioned and classified in the rules, is taken as a basis for fixing the insurance premium.

For small properties having an area of less than half a hectare (1) the premium is halved.

13) The determination of disputes as to the nature and the importance of the consequences of an accident is reserved to a college of arbiters.

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2. THE MUTUAL INSURANCE OF LIVE STOCK INTENDED FOR BUTCHERY. —
A. PIROCCHI in *La Mutualità Agraria*, no. 30, Rome, 30 November 1916.

In Italy since the law on sanitation of 22 December 1888 has been applied, an attempt has been made to compensate for losses consequent on the sequestration of butchers' meat, by insuring the animals with associations constituted on the principle of mutuality, by forming municipal insurance associations, or by insuring them with private joint stock societies. A great association formed for this purpose was active in North Italy, but failed and went into liquidation. On the other hand small societies, each of them active in a more or less limited sphere, as for instance a slaughterhouse, have had better results. The most important of these are the slaughterhouses of Milan, Turin, Rome, Mantua, Bergamo, Bologna, Florence and Naples. It will certainly be useful to show the organization and results of one of them, that of Milan, the growth of which is apparent from the following figures.

(1) 1 hectare = 2.47 acres.

Year	No. of Members	Receipts liras	Expenditure liras	Indemnities Paid liras	Annual Profit liras
1902 . . .	25	154,896.35	114,896.35	98,271.20	40,000.00
1903 . . .	—	155,372.93	127,864.41	102,150.78	27,508.52
1904 . . .	—	153,364.35	124,854.05	101,355.09	28,510.30
1905 . . .	—	188,384.50	170,168.55	140,304.46	18,215.95
1906 . . .	—	191,174.09	166,868.24	139,670.37	24,305.85
1907 . . .	—	196,237.57	158,022.52	132,311.90	38,215.05
1908 . . .	—	187,498.82	167,079.23	141,286.45	20,419.59
1909 . . .	—	173,892.97	149,235.96	116,624.23	24,657.01
1910 . . .	265	179,156.02	150,093.78	124,643.90	29,062.24

This association comprises butchers, live stock dealers and dealers on commission. The members undertake to insure with the society all their live stock intended to be butchered. Insurance was at first limited to animals attacked by tuberculosis or anthrax but was extended to cover all animals sequestrated in consequence of a statement that they were affected by any disease.

Premiums are fixed at the following rates : oxen, 1 lira ; foreign cows and bulls, 3 liras ; home cows and bulls, 5 liras ; thin oxen, 3.50 liras ; calves, 0.10 lira. The society's property is made up of admission fees, insurance premiums, the results of selling the remains of animals, interest on invested sums, repayments of expenses chargeable to insured persons and the reserve fund. The admission fee is 25 liras together with a premium annually determined by the members' general meeting, according to the amount of the reserve fund as shown by the last balance-sheet. The reserve fund is made up of a determined part of each year's balance, certain profits prescribed because they have not been withdrawn within a year of the day on which they became withdrawable, and premiums paid in addition to the admission fee. Indemnities are paid when a declaration of the sequestration is delivered to the slaughterhouse's veterinary office. From this moment the society becomes the owner of the animal, and is responsible for all tolls, costs of slaughter and destruction and knacker's fees.

The net profits are distributed as follows: one quota to the reserve fund (this was during the first two years 50 per cent. of the annual net profits); 3 per cent to the manager ; 2 per cent. to the staff ; the remainder to the members in shares proportionate to the premiums they have paid, if the amount of the sums repaid to them because of casualties do not surpass the total amount of the premiums.

The association is represented by the members' meeting, the administrative council and the manager. For the annual inspection of accounts there are three commissaries for the accounts and two deputies for them. To decide disputes there is a commission of five members of whom three do not belong to the society.

Such are the fundamental principles on which this association is organized and on which it works. It enjoys the favour not only of those interested in it but also of the communal authorities.

As for municipal insurance this has been profitably introduced in a voluntary form in a slaughterhouse of the Abruzzi, that of Aquila. It has two branches — insurance against losses caused by leprosy among pigs and against losses of cattle caused by icterus, tuberculosis etc. The premiums for cattle are: 5 liras for milch cows, 1 lira for bulls, oxen and cows not belonging to a race of milch cows, and 0.60 lira for weaned and 0.25 lira for unweaned calves. For pigs the premium is 1 lira.

For each head of cattle the communal fund pays an indemnity calculated according to the weight of the four quarters at market prices, less 0.15 lira a kilogramme, in the case of milch cows and 0.10 lira in the case of other cattle. As for pigs the fund pays the amount of the animal's full price, less 5 liras in the case of a boar and less 12 liras in other cases. Animals for which indemnities have been paid of course remain the property of the communal administration. There are special provisions against frauds.

Lastly joint stock societies have also been constituted in Italy for this object. They are not numerous however and their activity is usually unimportant. One of them — perhaps the most important in virtue of the funds of which it disposed — was recently dissolved after having attempted to extend its sphere over most of the kingdom.

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3. THE RULES FOR THE DISTRICT OFFICES OF AGRICULTURAL MUTUALITY. — *La Mutualità Agraria*, organ of the *Istituto Nazionale per la Mutualità Agraria*, no. 2, Rome, 20 January 1917.

Recently, as is well known, various district offices of agricultural mutuality were founded in Italy, at Turin, Genoa, Florence, Mantua, Reggio in Calabria and Palermo. The *Istituto Nazionale per la Mutualità Agraria*, which was the promoter of these offices, has now thought it opportune to draw up special rules for their use and the use of those which would gradually be formed in other districts. We resume the fundamental principles of these rules:

The constitution of a district office of agricultural mutuality is first of all accordant with an agreement between the local administrations and the National Institute of Agricultural Mutuality already cited. This agreement specifies the method of working. Its aim is:

a) to multiply mutual funds for insurance against mortality among live stock, to assist their administrative and technical installation, and to give them an impulse to federation and reinsurance;

b) to disseminate, especially among small farmers and small proprietors, knowledge of the hygiene of rearing live stock and the use of association with a view to zootechnical improvement;

c) to popularize the rules for the constitution and the good working of co-operative and mutual institutions (mutual insurance against losses from hail, fire, accidents of labour etc.), and to disseminate thrift and popular education in the country;

d) to organize carefully the collection of complete statistics as to mutual societies and data relative to their working.

The action of the office extends into every district and is exercised; 1) by oral propaganda, 2) by the circulation of pamphlets of propaganda, 3) in pursuit of its aim, that of determining the formation, installation and administrative control of mutual societies. It will enter into relations with the itinerant chairs of agriculture and the authorities and institutions which can best assist its action.

The resources necessary to its work are formed of the quota paid for participation by the institutions belonging to it (provinces, communes, savings funds, popular banks, agricultural unions, etc.) by the State's contributions and by other eventual receipts. The work of the office is directed by a managing committee composed of five members chosen from the delegates of institutions making grants and from the best known local persons, besides the representatives of the Ministries of the Interior and of Agriculture. This commission chooses from its own number a president, a vice-president and a secretary. Its task is to see that the funds, of which we have already spoken, are regularly employed. The office is entrusted to the care of a director, who should be a specialist in agricultural subjects or a veterinary surgeon and who is nominated by the National Institute of Agricultural Mutuality.

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4. A NEW MUTUAL INSURANCE SOCIETY AGAINST THE ACCIDENTS OF AGRICULTURE.

Pending the law on the compulsory insurance of peasants a mutual society for insurance against the accidents of agriculture (1) has recently been formed at Rome under the name of "Terra Italica". The initiative was due to the syndicate for the insurance of woodcutters and the society has gained the adherence of most of the members of that syndicate and of many farms in the various districts of Italy.

* * *

5. ITALIAN SAVINGS ON 30 JUNE 1916.

We take the following data from the *Esposizione finanziaria fatta alla Camera dei Deputati nella Seduta del 14 Dicembre 1916*, the report made by

(1) For the other mutual funds for insurance against the accidents of agriculture active in Italy see *International Review of Agricultural Economics*, January 1917, pp. 43-55.

the Minister of the Treasury, Signor Paolo Carcano, on the situation with regard to savings deposits on current account and in interest-bearing bonds on 30 June 1916:

*Savings Deposits on Current Account and in Interest-bearing Bonds
on 30 June 1916.*

Issuing Institutions:

Deposits on current account bearing interest	504,660,392	liras
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Institutions of Ordinary Credit:

Number of existing institutions	121	
Subscribed capital	566,381,030	"
Paid-up capital	548,872,935	"

Deposits:

Ordinary and in interest-bearing bonds	553,549,677	"
Savings	354,204,069	"
	<u>907,753,746</u>	"

Popular Banks:

Number of existing banks.	323	
Subscribed capital	81,284,410	"
Paid-up capital	80,526,175	"

Deposits:

Ordinary and in interest-bearing bonds	230,309,310	"
Savings	477,632,799	"
	<u>707,942,109</u>	"

Other Co-operative Banks:

Number of existing banks.	311	
Subscribed capital	43,292,269	"
Paid-up capital	42,749,718	"

Deposits:

Ordinary and in interest-bearing bonds	172,991,152	"
Savings	358,699,802	"
	<u>531,690,954</u>	"

Ordinary Savings Banks:

Savings deposits:

Credit of depositors	2,678,088,923	liras
Deposits on current account and in interest-bearing bonds:		
Credit of depositors and amount of bonds in circulation	226,071,583	"
	<u>2,905,060,506</u>	"

Savings Banks and Postal Banks:

Number of books	6,382,949	"
Credit of depositors	<u>1,987,639,997</u>	"

Monti di Pietà (Pawning institutions):

Ordinary deposits and interest-bearing bonds	120,285,037	"
Savings deposits	<u>125,081,842</u>	"
	<u>245,366,879</u>	"

Rural Funds ;

Various trust deposits	<u>112,335,769</u>	"
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SUMMARY.

Ordinary Deposits	1,808,767,151	liras
Savings Deposits	5,981,347,432	"
Deposits in Rural Funds	<u>112,335,769</u>	"
Total	<u>7,902,450,352</u>	"

Thus Italian savings amounted altogether on 30 June 1916 to 7,902,450,352 liras, as against 6,490,690,179 liras on 30 June 1910. The greater part of the amount — about five thousand millions — entered, as appears from the table we have just given, the ordinary and postal savings banks. The total sum of the deposits in the popular banks, the rural funds and the other co-operative banks — 1,351,968,832 liras — was also notable and shows what confidence these institutions inspire.

RUSSIA.

FINNISH SOCIETIES FOR INSURANCE AGAINST MORTALITY AMONG LIVE STOCK IN 1913. — Bidrag till Finlands officiella statistik: Försäkringsinspektörens berättelse angående de lokala brandstods-och kreatursförsäkringsföreningarnas verksamhet under år 1913 (*Official Statistics of Finland: Report on the Condition of Bailiwick and Parish Societies for Insurance against Fire and Mortality among Live Stock in 1913*) Helsingfors, 1915

At the end of 1913, 121 societies for insurance against mortality among live stock were active within spheres of less area than a government.

They were distributed in the various governments as follows:

Government of Nyland.	5
» » Abo and Björneborg. . .	7
» » Tavastehus.	3
» » Viborg.	25
» » Saint Michael.	5
» » Kuopio.	5
» » Vasa.	59
» » Uleaborg.	12
Total . . .	121

The number and value of the insured animals were at the end of 1913 as follows

Horses.	34,162	valued at	12,026,073	marks (1)
Horned cattle.	40,260	» »	4,497,972	»
Small live stock.	—	» »	23,673	»
Total . . .			16,547,718	»

If to these figures be added those relevant to the four societies which are active throughout the country, we find that animals were insured against mortality as follows at the end of 1913:

Horses.	62,423	valued at	23,344,011	marks
Horned cattle.	57,845	» »	7,115,797	»
Small live stock.	—	» »	23,673	»
Total.			30,483,481	»

Of the total number of horses 20.2 per cent. were insured, of that of horned cattle only 4.9 per cent.

Of the local societies thirty-three insured only horses and four only horned cattle, the remaining eighty-four insuring both horses and horned cattle.

From the point of view of the importance of the risks covered these societies can be grouped as follows, the figures having reference to the number of societies:

(1) 1 Finnish mark = $9\frac{3}{8}$ d at par.

Year	Societies insuring less than 50,000 marks		Societies insuring from 50,000 to 100,000 marks		Societies insuring from 100,000 to 200,000 marks		Societies insuring from 200,000 to 500,000 marks		Societies insuring 500,000 marks or more	
	Num-ber	Per-centage	Num-ber	Per-centage	Num-ber	Per-centage	Num-ber	Per-centage	Num-ber	Per-centage
1905 . . .	10	17.9	13	23.2	19	33.9	11	19.6	3	5.4
1906 . . .	18	23.7	17	22.4	27	35.5	12	15.8	2	2.6
1907 . . .	14	17.5	19	23.8	32	40.0	13	16.2	2	2.5
1908 . . .	16	18.8	17	20.0	31	36.5	19	22.4	2	2.3
1909 . . .	16	17.5	17	18.7	35	38.5	20	22.0		3.3
1910 . . .	22	22.0	22	22.0	30	30.0	23	23.0	3	3.0
1911 . . .	22	21.0	25	23.8	35	33.3	20	19.0	3	2.9
1912 . . .	25	22.5	27	24.3	37	35.4	19	17.1	3	2.7
1913 . . .	27	22.3	33	27.3	38	31.4	20	16.5	3	2.5

The percentage of accidents was 1.94 in the case of the insured horses, 1.33 in that of the insured horned cattle. Indemnities amounted to 1.26 per cent. of the insured value in the case of horses, 1 per cent. in that of the horned cattle.

The average indemnity paid was 225.49 marks for a horse, 80.65 marks for a head of horned cattle.

The following table resumes the data on this head for the ten years for which there is authentic statistical material:

Year	Number of Accidents		Indemnity per 100 marks of insured capital		Indemnity per Accident	
	Horses Percentage	Cattle Percentage	Horses Marks	Cattle Marks	Horses Marks	Cattle Marks
1904	1.67	1.68	1.10	1.00	230.03	55.43
1905	1.77	1.94	0.96	1.08	212.53	52.68
1906	1.60	1.86	1.11	1.18	229.73	55.96
1907	1.63	1.45	0.97	1.00	195.64	62.25
1908	1.65	1.19	1.11	0.87	224.69	68.21
1909	1.74	1.46	1.16	1.00	226.70	65.20
1910	2.03	1.26	1.20	0.93	204.80	71.30
1911	2.31	1.25	1.68	0.97	299.22	76.56
1912	2.21	1.52	1.37	1.06	214.05	71.08
1913	1.94	1.33	1.26	1.00	225.49	80.65

The premiums paid in 1913 were as follows :

For the insurance of horses	especially.	112,014	marks
" " " " horned cattle	"	28,241	"
" reserve fund		7,224	"
and generally		95,852	"
Total . . .		243,331	"

This sum constitutes 1.53 per cent. of the average amount of the insured capital during the year. Other receipts and interest etc. brought the societies 19,970 marks or 0.13 per cent. of such average amount. The receipts were thus altogether 263,301 marks or 1.66 per cent. of the average amount of the insured capital. Of this sum the following sums were spent :

On indemnities	188,612	marks or 1.19 per cent. of the insured capital
On costs of administration	27,693	" " 0.17 " " " " "
On increasing reserve fund . .	10,778	" " 0.07 " " " " "
On other expenses . . .	13,184	" " 0.08 " " " " "
Total . . .	240,267	" " 1.51 " " " " "

There was thus a net profit of 23,040 marks.

Costs of administration reached 11.4 per cent. and other expenditure — costs of organization, interest, etc. — 5.4 per cent. of the premiums received.

The balance-sheets of the societies showed at the end of the year, when the amount of engagements had been deducted, an excess on the receipts side amounting to 90,984 marks or 5.50 marks for every 1000 marks of insured capital.

Part III: Credit

ALGERIA.

CREDIT FOR COLONIZATION IN ALGERIA

SOURCE:

AVENOL (J.): Les Banques Algériennes et la Banque de l'Algérie (*Algerian Banks and the Bank of Algeria*) in *Revue des Sciences politiques*, 3rd. Series, 31st. year, Vol. XXXVI. — III. Paris, 15 December 1916.

The considerable economic development of Algeria in the last ten years is proof of the remarkable effort which colonists have made in the domain of agriculture, and also of the perfect appropriateness of the financial methods which have been employed to support agriculture by providing it with necessary credit.

From 1901 to 1911 Algeria's foreign trade doubled, being represented in 1913 by the sum of fifteen hundred million francs (1).

The success of this effort was only rendered possible by the support given to colonists by the banks. The three principal of them are the *Banque de l'Algérie*, which has a privileged issue, and two private houses — the *Crédit Foncier d'Algérie* and the *Compagnie Algérienne*.

M. J. Avenol, from whom we borrow the chief data contained in this short study, remarks that the two generations following on the conquest did not experience hindrance and uncertainty in vain. Algeria has become a country of bold, enterprising colonists, having faith in the future of the land and the technique and traditions necessary to deriving profit from its

(1) 1 franc = $9\frac{3}{5}$ d. at par.

soil. The colonists are however short of capital: they need credit and therefore the collaboration of the banks. The banks have, like the settlers, profited by the lessons of an experimental half century and have also taken on a distinctly Algerian character. In the midst of their business difficulties they have worked out their methods and become aware of the part they have to play. As years pass their functions become more and more important. Agricultural wealth grows with increasing rapidity and receives from credit increasingly powerful aid.

We have said that the foreign trade of Algeria has doubled in ten years. The value of the paper held by the three chief banks has been multiplied by five in the same period and this fact is the measure of the part the banks have taken in colonization — a part which has been preponderant.

§ I. THE CHARACTER OF THE CREDIT AFFORDED TO COLONIZATION.

The problem of credit in Algeria is posed as follows :

“ It is easy for colonists to procure land, but only uncultivated, bush-grown land, or — what is worse — land overgrown with deep-rooted lentisks and palm-trees. To bring it under cultivation, erect buildings, buy machines and build up stock — all this asks for more than hard work and courage. And when a well worked farm has arisen out of the Arabian *bled*, circulating funds are still needed, to cover the costs of the seeds, the maintenance and the harvest which allow the annual course of agricultural labour. Must the colonist from the outset have all the capital which he has to invest? Will he be able to contract for a long-term loan, like a French landowner who wishes to improve his property? ”

Land credit as understood in France did not seem to be adapted to a new country like Algeria. What after all is a mortgage of bush-land worth? A borrower has, as in all countries where the value of the soil has not been realized, no assets but his chances and his hope. It has been deemed imprudent therefore to trust him with capital of which he would be master for a long period.

Moreover he cannot make his farm in a single year but brings his efforts to success gradually. It is enough to grant him every season advances proportionate to the harvests which invested capital may be expected to produce. The risks of loss are thus diminished, and progressive efforts can be helped by successive advances for short terms. Thus the creditor follows the fortunes of the debtor step by step. Each period brings him a reward. Each year his security is strengthened by the increased value of the property, and his mortgage, if he have one, has eventually a firm basis.

This transaction may be compared with that which enables a trader to open a credit account: there is no single grant of one loan but a series of successive operations. But they are timed more slowly than in the trader's case in accordance with the seasons — advances being granted when the season opens and repaid at harvest-time.

These short loans are banking business and form indeed the chief business of the Algerian banks, which are above all agricultural banks. Their paper certainly includes many ordinary commercial bills which represent realized transactions and settlements of debts. But it consists largely of these loan titles which are in the traditional form of bills maturing in three months, there being a tacit agreement that they are twice renewable in order to bring them into line with the farming cycle.

It is seen that personal credit is here concerned. Naturally the banks, each in its own way, seek to surround their debtors with a network of securities; but these, excellent though they be, are only accessory, as appears from what we have already said. The chief dependence is on a just estimate of any colonist admitted to the benefits of credit.

The paper of the Algerian banks represents therefore in part short-term loans, certainly recoverable with good management, but not maturing as rigorously as ordinary banking notes because their realization depends on the sale of the harvest.

§ 2. THE SOURCES OF THE CAPITAL ASSIGNED TO AGRICULTURAL CREDIT.

Obviously the banks cannot find all the capital required by their business in Algeria, but must supply themselves abroad, that is to say in France. In what form do they acquire this capital — as capital, shares, deposits at sight or financial bills — and in what proportion? The very special character of their business does not leave their choice entirely free.

They cannot count on that uninterrupted series of graduated receipts which gives the desired liquidity to the paper of French banks.

Many of their advances are tied up for from eight to nine months in a year. From the beginning of the agricultural year the number so immobilized increases until the harvest releases all of them together. A new financial effort is then necessary. Harvest-time, the single period in which revenue is received, opens up a series of numerous settlements — purchases of harvested products, payment of wages, payments for transport and various acquisitions, repayments. This accumulation of payments within so short a time gives rise to a considerable need of money. The banks must meet it, for the purchasers of the harvest, with whom the movement starts, come to them for circulating funds in the form of seasonal credit.

This progressive and uniformly periodic nature of obligations cannot accommodate itself to resources which are too fluid and unstable: banks subject to such obligations cannot run the risk of being suddenly forced to make large repayments. Therefore they must follow the example of business banks and diminish their margin of liabilities by working with a large capital in shares. But where can they find complementary resources in a country poor in capital? On what reservoir can they draw in order to feed the stream of their business? Is it possible that an agricultural country, which has financial resources insufficient for its own needs, can escape from strict subjection to the European banks, by avoiding the

too direct effects of the reaction from international situations and tight money-markets, and by acquiring, if not independence, at least a certain financial autonomy? Algeria seems to be in the privileged position which allows of all this. Its two great private banks, the *Crédit Foncier d'Algérie* and the *Compagnie Algérienne*, have in France not only the headquarters of their respective companies but also agencies. They act as French banks and have succeeded in obtaining depositing clients. This direct participation in the resources of the short-term capital-market is a great force: it enables them to divide their debt among numerous depositors, almost all of whom are without the preoccupations of professional finance and have markedly regular habits and needs.

These banks are thus directly connected with French capitalists and the constant level of their resources is the better assured to them. But these deposits, although they are abundant and relatively stable, have not the needed elasticity. In order to have resources at command during the eight or ten months of the progressive immobilization of their advances the banks must be able to rediscount their paper. For this they have locally the support of a bank which helps them to undertake new operations before those in course have been completely realized. The *Banque de l'Algérie*, being master of its issues, allows rediscount, and thus gives to the other banking houses the opportunity of making settlements on the volume of their business, and provides them with the resources in credit and specie which are required by the needs of the harvest.

§ 3. THE ROLE OF THE BANQUE DE L'ALGÉRIE.

The *Banque de l'Algérie* has been privileged for sixty-five years to issue notes; and its activity and prosperity have increased considerably, especially in the last fifteen years. Its powers are large, and its methods are based rather on unhampered experience than on rules. No cover is compulsory for its issues; it discounts bills and gives notes in exchange for them. Its circulation therefore varies with the necessities of the moment, is enlarged when the need of money is considerable and narrowed in times of stagnation. It is of course limited by a legal maximum. The bank accepts for discount bills bearing two signatures, and if it undertakes rediscount it seeks especially for a direct clientele. It is easy to understand that in order to associate itself with the activity of the country the bank must not in these circumstances merely accept commercial bills, but must be above all an agricultural bank and make advances.

If it be profitable to a new country that its fiduciary circulation should be important among its necessary means of credit, the ability of a bank issuing notes to over-develop its business constitutes on the other hand a grave danger. It is therefore above all necessary to exclude credit granted for motives of complaisance and to allow credit to have a bearing only on genuine business. At the price of continued experience the *Banque de l'Algérie* has acquired an extremely sure technique. This fiduciary circula-

tion, linked without rigidity to the course of its business, therefore provides it with a precious instrument. Since gold does not circulate in the colony, owing to the fact that the balance of trade with the mother-country is against it and to native hoarding, the currency is exclusively Algerian. The notes are payable to the bearer at sight in silver.

None the less there is exchange between Algeria and France, the perfect equilibrium between the two monetary systems being due to a curious mechanism created by an administrative convention. The *Banque de l'Algérie* has opened at the Treasury a current account into which agents make payments and whence they make withdrawals. Owing to the costs of military occupation public expenditure in Algeria has always exceeded local resources. The Treasury would therefore have had frequently to reinforce the credit it granted, had not this been accomplished automatically and simply by a utilization of sums placed at the Treasury's disposal by Algerians for the payment of their foreign debts. The concentration of these in the *Banque de l'Algérie* compelled this bank to become the intermediary for payments in France, charging a moderate commission. In virtue of this convention the bank must remit a bill on the home Treasury, on demand, to anyone paying its amount, and such bill is covered by the bank's credit account. As for Algerian debtors they receive for their own bank notes a value which can be realized in France at par. In recent years this system of direct remittances has been largely replaced by postal orders which accrue to the Treasury's account by the medium of post-office receivers. Postal administration does no more than see that its receipts are paid into the Treasury's current account at the *Banque de l'Algérie*, and the latter is responsible for settling Algerian debts to the home country.

From 1904 to 1913 the issues of the post-office exceeded the amount of the payments in the form of postal orders by fifteen hundred million francs, for which sum the bank became the Treasury's debtor. This debt did not accumulate for the credit balance of the Treasury remained constantly below a hundred million francs except in the crisis of 1912-1913.

How was the bank able to free itself from the burden? In the first place the Treasury was obliged to ensure an average annual payment of one hundred millions from the home budget, which represented in the period under consideration relief to the extent of one thousand millions.

For the other five hundred millions the bank was obliged, failing credit in France, to utilize its debt in Algeria. This sum did not therefore leave the colony but represents the new capital applied to its development. This new capital has been transferred from France to Algeria by a stroke of the pen, and has been obtained by drawing on the bank which is France's chief debtor and which converts home funds into its notes.

Thus the criterion according to which the *Banque de l'Algérie* regulates the Algerian money market is perceived, the principle namely of avoiding above all else the disproportionate growth of its debt to the Treasury.

The Algerian banks are definitely neither agencies for managing deposits nor agencies for discounting paper. They depend on colonization and the amount of their business is proportionate to its progress. It is the

new colonists who increase their clientele and therefore they favour them, in fact finance them. Credit is very easily obtained in this colony. The necessary means are supplied by the original mechanism to which we have alluded and which M. Avenol succinctly and very accurately describes as follows :

" Three large banks operate in Algeria. Two of them there employ capital obtained either locally or in France. These resources of their own give them a precious autonomy, but the course of their business is slow. Do they not perhaps limit their credit business too rigidly ?

" It is the part of the *Banque de l'Algérie* to give elasticity to the system. An issuing bank having a small capital, it finds resources in its notes payable to bearer : subject to no obligation as regards cover, it makes a currency of the credit it affords. It has a direct clientele with whom its operations are very important. But it also rediscounts the paper of banks. Its fiduciary circulation constitutes the principal money of Algeria, and — varying with the amount of business done — is always complementary to the capital of the banks. Thus Algeria makes advances to itself.

" Unfortunately this circulation has no international value, not because it is itself vicious but because Algeria is always in the position of a debtor to the mother-country.

" Thanks however to a curious mechanism connecting French creditors and Algerian debtors payments are made in francs at par, as though France and Algeria were one country. By an administrative device the bank is the only debtor, the Treasury the only creditor. This disadvantageous position is exactly that which gives the bank an interest in playing that moderating role which is suited to an issuing bank. It is the course of its indebtedness to the Treasury which gives it the data whence to determine the rate of discount, and the course of discount makes the supply of capital in Algeria proportionate to sound business ".

This necessity of maintaining the current account with the Treasury at a just level was made particularly clear by the crisis of 1912-1913. This crisis was an indirect result of the very abundant corn harvest and vintage of 1910. The resources consequently available certainly gave a new impulse to land purchase and the bringing of land under cultivation, but they led more particularly to expenditure on luxuries — the value of imports increasing by 150 million francs in three years — and to speculation. Unfortunately in 1912 Algerian business ceased to develop smoothly and lost equilibrium. The paper of the *Banque de l'Algérie* was increased to excess by rediscounting operations with other banks which found their resources largely absorbed by the need for credit. At the same time the debit balance of the *Banque de l'Algérie* with the Treasury rose inordinately, because the product of discounted bills was largely sent to France while the bills given by the bank returned to it by the medium of the post-office. By opportunely raising its decreed rate of discount the *Banque de l'Algérie* put a stop to this flow of business, and the two great private banks decided to increase their capital and were thus able to re-establish equilibrium.

CANADA

SCHEME FOR THE ORGANIZATION OF RURAL MORTGAGE CREDIT IN MANITOBA, SASKATCHEWAN AND ALBERTA.

SOURCE:

THE GRAIN GROWERS' GUIDE, Winnipeg, 22 November 1916.

Mr. Edward Brown, provincial treasurer of Manitoba, has together with the provincial treasurers of Saskatchewan and Alberta drawn up an interesting scheme for the uniform organization of rural mortgage credit in these three provinces. It seems that the scheme will shortly become law.

It does not exactly reproduce any of the various systems of mortgage loans followed in the different countries of the world, but has been inspired by one and another of them, adopting their provisions and modifying them, where necessary, to meet the needs of West Canada. It has therefore its own individuality although it is based on the well-known principle of amortization.

The governments of the three provinces cited propose to form in each of them a special organization to be known in Manitoba as the "Manitoba Rural Credit's Association" and to have its headquarters in Winnipeg. This association will have the duty of applying the system of mortgage credit and will be under a board of management consisting of five members. The chairman or commissioner will be the only permanent official and will be appointed by the government. Two members of the board will be nominated by the Union of Municipalities and the other two by the government. Two of the members of the board will be Conservatives and two of them Liberals.

It will be provided in the legislation that money will be lent by the Rural Credit's Association on first mortgages on occupied farms, only for the following purposes: —

- 1) To provide for the purchase of land for agricultural uses.
- 2) To provide for the purchase of the equipment, fertilizers and live stock necessary to the proper and reasonable working of a mortgaged farm.

3) To provide buildings and enable improvements on the land — the term "improvements" to be defined by the board.

4) To liquidate the existing debts of the owner of the mortgaged land, or debts he subsequently incurs for the purposes which have been cited, the board at all times first approving such expenditure.

Some especial provisions of the scheme will now be given.

The smallest loan that will be granted is one of \$500, the largest one of \$10,000. None will exceed 50 per cent. of the value of the land as appraised for agricultural purposes, its earning power being principally considered in appraising. No persons except farmers, actually engaged in farming or about to engage in it, will be able to secure loans. No borrower will be allowed to sell or transfer his share in the association, which will remain permanently attached as part of the mortgage transaction. If he sell his farm the board has power to transfer the mortgage and also the shares to the purchaser. If he die the mortgage and shares may go to his heirs. Every applicant for a loan will use a regular prescribed form on which will be stated the objects for which the loan is to be used. Penalties will be provided for wilful mis-statements. If any borrower spend any part of his loan for purposes other than those specified in his application, or violate his mortgage contract in any way, the board will have power to declare his mortgage due and payable at once. All payments on the mortgages will be made on 1 December, thus falling due together and so reducing the work of administering the scheme. The date is chosen as being that most convenient to farmers. It is the plan to charge 8 per cent. interest on all overdue payments. All mortgaged buildings are to be insured to the board's satisfaction.

Loans will be made only for terms of twenty, thirty or forty years, the principal and interest to be repaid in annual instalments adjusted according to the term. Thus a \$1,000 mortgage for twenty years will entail a repayment of \$87.22 a year, for principal and interest, and this will discharge the entire obligation in the twenty years. On a thirty year mortgage of \$1,000 the annual payment due will be \$71.02; on a forty year mortgage of \$1,000 it will be 63.27.

The following table shows the annual payments due for a thirty year mortgage.

Yearly Payments for a Thirty Year Mortgage under the Proposed Scheme (1).

Year	Principal Balance	Interest 5 %	Principal Repayment	Reserve 0.79 %	Total Payments
1	\$ 1,000.00	\$ 50.00	\$ 13.12	\$ 7.90	71.02
2	986.88	49.34	13.88	7.80	71.02
3	973.00	48.65	14.69	7.68	71.02
4	958.31	47.92	15.53	7.57	71.02
5	942.76	47.14	16.43	7.45	71.02
6	926.35	46.32	17.38	7.32	71.02
7	908.97	45.45	18.39	7.18	71.02
8	890.58	44.53	19.46	7.03	71.02
9	871.12	43.56	20.58	6.88	71.02
10	850.54	42.53	21.77	6.72	71.02
11	828.77	41.44	23.03	6.55	71.02
12	805.74	40.28	24.37	6.37	71.02
13	781.37	39.07	25.78	6.17	71.02
14	755.59	37.78	27.27	5.97	71.02
15	728.32	36.42	28.85	5.75	71.02
16	699.47	34.97	30.52	5.53	71.02
17	668.95	33.45	32.29	5.28	71.02
18	636.66	31.83	34.16	5.03	71.02
19	602.50	30.13	36.13	4.76	71.02
20	566.37	28.32	38.23	4.47	71.02
21	528.14	26.41	40.44	4.17	71.02
22	487.70	24.39	42.78	3.85	71.02
23	444.92	22.25	45.26	3.51	71.02
24	399.66	19.98	47.88	3.16	71.02
25	351.78	17.59	50.65	2.78	71.02
26	301.13	15.06	53.58	2.38	71.02
27	247.55	12.38	56.68	1.96	71.02
28	190.87	9.54	59.77	1.71	71.02
29	131.10	6.56	63.42	1.04	71.02
30	67.68	3.38	67.11	53	71.02
		\$ 976.67	\$ 999.43	\$ 154.50	\$ 2,130.60

Ordinarily it would be expected that the farmers in Western Canada would not care to assume mortgages running from twenty to forty years, but the new scheme allows any farmer to pay off his mortgage in full at any half-yearly period. He will thus benefit by the low rate of interest and the small payments and yet have the opportunity of discharging his mortgage whenever he is in a position to do so.

After the necessary provincial legislation has been enacted no money will be lent to any farmer until the municipality in which he resides has sub-

(1) In making the calculations in even dollars and cents a small difference (57 cents) occurs which would be absorbed in actual practice.

mitted a by-law to the electors and their majority has voted in favour of it. The Act will then be brought into operation in this municipality. A municipality by its approval of the by-law will guarantee the government against loss on mortgages placed within it to the extent of 5 per cent. of the money lent. This measure is intended to improve the security of the bonds which will be issued, and it is not expected that there will be any losses.

When the by-law has been approved the municipal council will appoint a committee, either of its own members or others, to inspect farmers' applications for loans and, at their discretion, to recommend them to the board.

The secretary-treasurer of the municipality will receive all applications for loans as part of his regular duties and without extra payment from the government, but there is nothing to prevent the municipality from arranging extra payment for him for this work.

The proposal of the government is to raise the necessary money by offering 5 per cent. bonds, on which both principal and interest will be guaranteed by the government, for sale throughout the province and in the money markets of the world. It is expected that they will sell at par at the present time and that the necessary money will therefore cost the government about 5 per cent. The expense of administering the Act is expected to be not quite 1 per cent., so that the total average cost of mortgages will be less than 6 per cent. on thirty year loans.

The government intends the Rural Credits Association never to be commercialized. In future years all its capital stock and shares are to be held by the government, or farmers who have borrowed from it on mortgages, and who will have received 5 per cent. of their loans in shares.

The shares are expected to pay a fairly good dividend, depending entirely on the profits of the association. No dividends will be paid until a reserve account, equal to 20 per cent. of the paid-up capital, has been created.

The profit in the conduct of the association is expected to come through the cheapness of administration, and the margin which is provided by the fact that the rate of interest on repayments is lower than that on the original loan.

To set the scheme in operation in Manitoba the government will arrange to borrow from the banks at 5 per cent. the sum of \$1,000,000 dollars, and to subscribe for \$100,000 stock in the association. When the \$1,000,000 has been lent on mortgages 5 per cent. of this sum, or \$50,000, will have been subscribed in stock by borrowers. The government will then issue guaranteed 5 per cent. bonds, free from all local taxation, to the maximum extent of \$9,000,000.

To keep down the cost of administration the government will provide that the Land Titles Office make no charge for investigating titles and registering mortgages, placed by the Rural Credit's Association, beyond the regular registration fees. The government in Manitoba will also provide

that the accounting work in connection with the mortgages be done in the office of the comptroller general, without charge to the association.

The rate at which farm mortgages will be secured will involve a saving of from 1 to 2 $\frac{1}{2}$ per cent. in Manitoba and from 2 to 4 per cent. in Saskatchewan and Alberta.

The scheme may have become actual next spring. If it prove satisfactory the governments of the provinces concerned are expected, in the course of a year or two, to tackle the question of what is commonly known as "floating credit for farmers", the loans which carry them over from seed-time to harvest. These now cost from 8 to 12 per cent. and it is hoped that it will be possible to supply them more cheaply.

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES.

ARGENTINE REPUBLIC.

THE FRANCO-ARGENTINE MORTGAGE BANK IN 1915-1916. — *L'information*, Paris,
27 December 1916.

The results obtained in 1915-1916 have again been injuriously influenced by the stagnation of business, which has continued in the Argentine, contrary to the hopes raised by an excellent corn harvest and by the great need in Europe for the country's products.

The profits which the farmers hoped to reap from abundant harvests and the high selling prices in purchasing countries were sensibly reduced by the great difficulty of finding ships for transport and the consequent enormous rise in freights, which in many cases, and notably in those of corn and maize, came to surpass the value of the merchandize in the producing country. Hence in the Argentine the price of cereals sank to a level which left hardly any profit to agriculture; exportation was arrested; and landowners were in consequence much embarrassed.

The mortgage banks naturally felt the reaction from this economic situation; and the Franco-Argentine Bank found, in spite of its caution in granting loans and its vigilance in exacting due annual payments, that the arrears of interest owing to it amounted on 30 June 1916 to 11,836,777.90 francs.

In consequence however of the slowing down of business, of the reduction of the habitual expenditure of the republic in foreign countries, and the reduction of imports, the unemployed capital in the banks is very plentiful and can be obtained on easy terms. Therefore, in spite of the straits of landowners, mortgage banks have been obliged to lower the rate of interest on their loans. But, since the cereal harvest in North America and Europe was defective, prices have risen in the Argentine, and for some time an improvement in the economic situation has been perceptible.

Bonds. — The bonds, redeemed bonds being deducted, amounted on 30 June 1916 to

187,433	at 4	per cent.
242,458	at 4.50	per cent.
49,511	at 5	per cent.

that is a total of 479,402 bonds

representing a nominal capital of 238,701,000 francs.

Mortgage Loans. — On 30 June 1915 the amount of mortgage loans reached 247,751,622 francs.

During the year 1915-1916 the society examined 101 applications for loans, for a total amount of 41,165,000 francs. Fifty of them, representing 13,137,000 francs, were rejected, and the society therefore granted only fifty-one new loans for a total amount of 28,028,000 francs, of which sum 26,848,000 francs have already been paid.

On the other hand the society recovered during the year 39,843,072 francs, by repayments of mature loans, anticipation of repayments and expropriations. The amount of current mortgage loans diminished by 12,995,072 francs, their total sum being 234,756,550 francs on 30 June 1916.

This sum was made up as follows :

Urban loans	16,290,950	francs
Rural " 	218,465,600	"
	234,756,550	"

The rural loans thus represent 93.06 per cent. of the total amount of current loans.

Payment of Annuities. — The amount of the annuities falling due on 30 June 1915 and not paid on that date was 10,377,879.20 francs. The half-yearly payments which fell due during the year amounted to 20,299,133.70 francs. The total sum of yearly payments to be received between 1 July 1915 and 30 June 1916 was therefore 30,677,012.90 francs. Of this sum 18,840,235 francs was recovered, so that on 30 June 1916 the amount of due and unpaid annual payments was 11,836,777.90 francs. Most of the debtors show excellent dispositions ; but the situation in which the last few years has placed them makes it difficult for such of them as were not at first able to meet their engagements to free themselves now. It is therefore returns arising out of earlier years which are most easily collected.

FRENCH COLONIES.

THE DISCOUNT AND LOAN TRANSACTIONS OF COLONIAL BANKS. — *Ordinary session of Chamber of Deputies, meeting of 18 December 1916 Appendix no. 2793. Report in the name of the Commission for Foreign Affairs, the Protectorates and the Colonies, charged to examine a proposed law for the prorogation of the privilege of colonial banks and of their by-laws.*

The discount and loan transactions of the colonial banks have not at any moment been interrupted ; and in spite of the state of war the figure representing these, by far the most interesting of banking transactions from the point of view of economic activity, shows a very noticeable advance on similar figures for previous years.

Martinique. — Thus the Bank of Martinique did not hesitate to give an exceptional importance to its loans on harvests which rose to the sum of 4,528,000 francs (1) as against 3,595,000 francs in 1913-1914 ; that is they increased by nearly a million. In the same way the loans on merchandise passed from 676,000 francs, their sum in 1913-1914, to 1,169,000 francs in 1914-1915 and 1,764,000 francs in 1915-1916 ; that is the transactions of this one kind increased in value by 1,100,000 francs in two years.

The total amount of the loan and discount transactions of the Bank of Martinique, including the negotiation of bills in foreign countries, rose from 23,164,000 francs in 1913-1914 to 34,485,000 francs in 1914-1915 and 37,124,000 francs in 1915-1916 ; that is the increase in two years was one of fourteen millions or 66 per cent.

Guadeloupe. — The same considerations and statements are applicable to the Bank of Guadeloupe, the advances of which have been in a very large proportion, as in Martinique, in the form of loans on harvests. This bank in 1914-1915 made such advances to the amount of 4,176,400 francs as against 3,576,000 francs in 1913-1914.

It is to be noted that the loans on harvests, although they involve such large risks, have been made at a rate no higher than loans by the Bank of France on first-class French securities, namely 6 per cent. In other words the Bank of Guadeloupe, which might most legitimately have raised this very low rate, has subordinated all considerations of private interest to care for the public interest.

As in Martinique loans on merchandise have been notably developed during the war. Their total rose from 114,530 francs in 1913-1914 to 420,500 francs in 1914-1915 and 805,950 francs in 1915-1916.

The total sum of the discount and loan transactions of the Bank of Guadeloupe, including the negotiation of bills in foreign countries, was 27,879,670 francs in 1914-1915 and 31,510,440 francs in 1915-1916 as against 22,767,800 francs in 1913-1914.

(1) 1 franc = 9 $\frac{3}{5}$ d at par.

Reunion. -- The Bank of Reunion has evinced since the very beginning of the war a remarkable spirit of initiative, taking steps without waiting for any sort of impulsion, whatever might be the gravity of the risks involved.

In the first place this bank notified the governor of the colony as early as 1 August 1914, that is before war had been declared, that it would meet any needs which might arise if the colony should be isolated by the interruption of communications with Paris. This undertaking had reference not only to the needs of manufacturers, planters and cultivators of every description, but also to those of the colony, even if it should come to be deprived of an important part of its receipts by the anticipated reduction in the revenue from customs dues and tolls. The bank offered these services to the colony spontaneously and thus gave proof of its desire not to allow the general interest to suffer.

Subsequently, when it had advertised in all the newspapers of the colony that it would continue to work as in the past, it decided to grant advances on merchandise at the rate of 6 per cent. — a rate less by 1 per cent. than that on which the Bank of France then made advances on the best security — to all large and small planters, manufacturers and business men of every description. This rate, low as it was in the existing circumstances, has been yet further reduced since November 1915 to 5 per cent. for loans on merchandise for export and on most imported wares, notably rice, that is on almost all merchandise.

The bank has done even better in the matter of loans on harvests, which are one of the most risky of banking transactions and are effected only by the banks of the old colonies. In their case it has maintained the 5 per cent. rate which is so favourable to local agriculture, and is less by 1 per cent. than that now charged by the Bank of France on the safest transactions.

Further, since it reasonably anticipated from the time of the outbreak of hostilities a very considerable rise in the price of sugar, the principal article of export, it recommended all producers, whether large or small, not to sell at the prices current when the war began. It advised small producers to form themselves into groups in order to receive the loan which it would grant them on pledged goods, and to incur responsibility in the name of one of their number, thus avoiding the payment of registration and stamping dues (three francs a deed). Finally, since the bank believed that the exploitation of persons of small means by speculators must be avoided at all costs, it refused to make certain advances on pledges which would have had a purely speculative character; and shortly afterwards organized at its own cost a service of information by cable, thus apprising the population of the prices which the different colonial products were fetching in Paris.

The loans which the bank granted on the products of the colony in these conditions rose from 5,915,000 francs in 1913-1914 to 10,072,600 francs in 1914-1915, that is to say they were doubled. Between 1913-1914 and 1915-1916 the loans on imported merchandise rose from 3,555,000

frances to 6,268,000 francs ; and the total sum of loans on merchandise, both imported and exported, from 9,471,000 francs to 15,502,000 francs.

As regards the total sum of loan and discount transactions, including the negotiation of bills on foreign countries, it passed from 21,082,290 francs in 1913-1914 to 39,795,400 francs in 1915-1916.

French Guiana. — In Guiana the privileged bank which, owing to the special economic situation of the colony, transacts business differently from the other colonial banks, has also very definitely faced existing circumstances only from the point of view of the public interest, a fact which is sufficiently proved by the annual report drawn up by the governor of the colony on the general situation of Guiana, and reproduced in the *Journal Officiel* of the republic of 15 October 1915. We will quote from this document only the following short extract :

“ The bank then decided to make advances to the producers on their products of which there had thus come to be a slump, and to enable them to continue work by ensuring the wages of the workpeople.

“ It should be realized that the bank made these advances on raw products at the discount rate of 6 per cent. a year, which for the four months which were the average term of the transactions, yielded a profit of 2 per cent.

“ This rate should be considered very low for Guiana, where money costs as much as 20 per cent. It would have been moderate even in France where the rate of discount has latterly risen to as much as 9 per cent.

“ It should also be remembered that the goods pledged to the bank had only a conventional value, that no one could foresee when it would be possible to realize the value of these products which were security for the loans.

“ It may be said that in undertaking these transactions, as in taking other opportune steps, the bank has been led above all by a broad interpretation of its duty as a privileged establishment.

“ The bank took the point of view of the colony's highest and most general interest. Far from taking restrictive measures it enlarged the scope of its transactions. It placed no obstacle in the way of the withdrawal of deposited funds ; it provided the resources necessary for the continuation of industry ; it maintained its low rate of discount and reduced the premium of its *tirages* in spite of the increased cost of exchange transactions ”.

It appears from the reports of the Bank of Guiana that the figure representing its loans on merchandise rose in 1914-1915 to 1,039,000 francs as against 192,700 francs in 1913-1914 ; that is to say that the importance of these transactions was multiplied by six. As regards the total sum of the bank's transactions it reached 9,233,350 francs in 1913-1914, 9,995,310 francs in 1914-1915, and 12,402,830 francs in 1915-1916.

Generally, credit has been granted by the banks of the old colonies since the outbreak of hostilities on terms which are noticeably better than those prevalent in France. Yet rates much higher than those obtaining in Europe have always, notoriously, been considered normal in the colonies.

RUSSIA.

THE QUESTION OF FOREST CREDIT IN FINLAND. — VESTERINEN (Emil): *Kysymys lainan antamisesta metsävakuutta vastaan* (The Question of Credit on the Security of Forest Mortgages), *Maatalous*, Helsingfors, Year 1916, Number 14.

The Union of the Savings Banks of Finland has taken advantage of a law of 1901, which instituted mortgages on wood-felling contracts in the interests of workers in wood, and has approved a detailed scheme for the organization of forest credit and submitted it to the 408 savings banks in the country, inviting them to introduce such credit into their business. Savings banks do indeed seem to be well fitted for activity of the kind, in right of their simple and inexpensive organization, their knowledge of local life, and their opportunities for watching over the mortgaged forests.

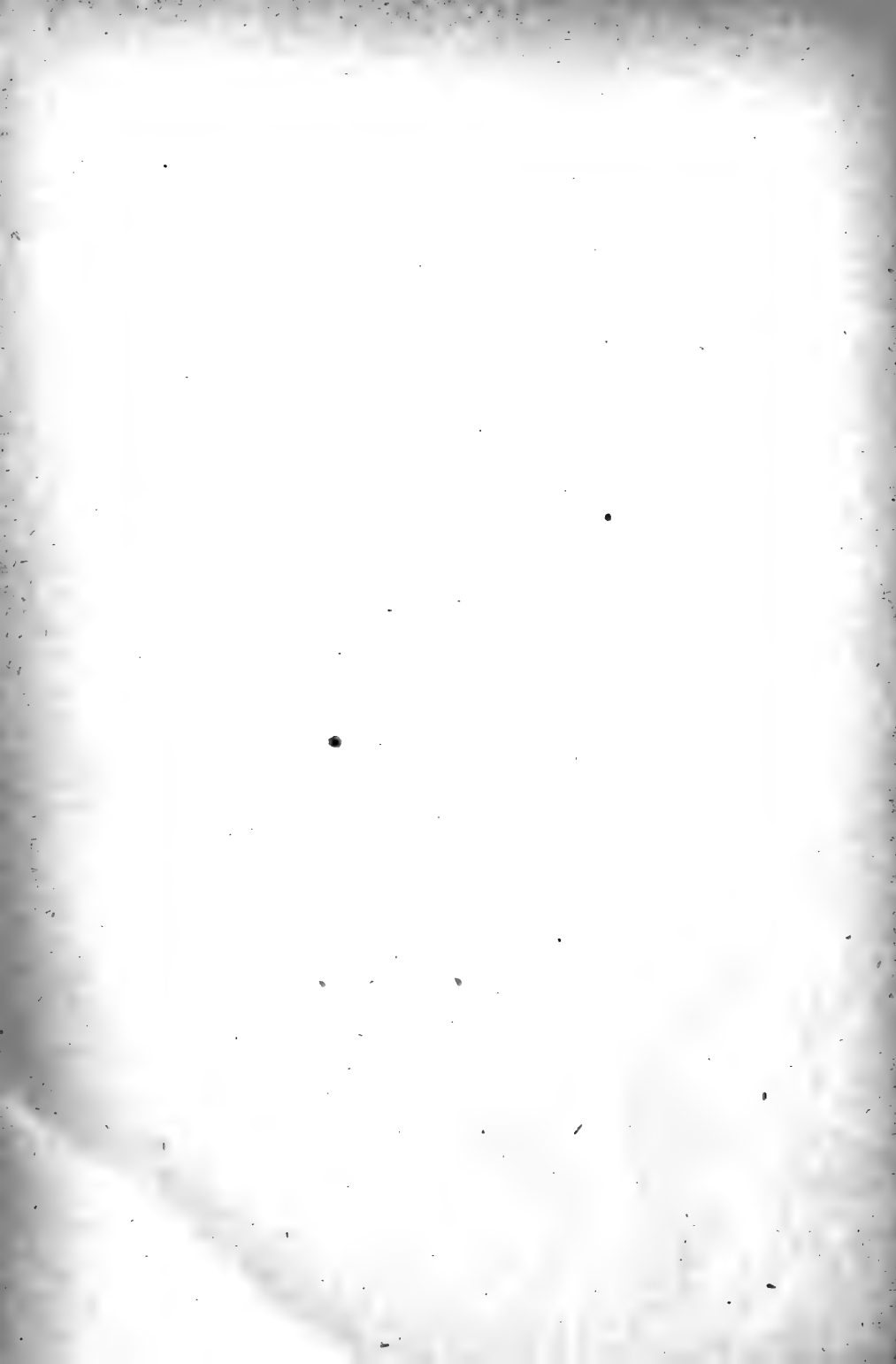
The clauses of the scheme may be resumed as follows:

- 1) The owner of a forest causes it to be valued by an expert in forestry, who should ascertain its actual condition, the quantity of its wood which can be sold and the price this wood will actually fetch, the total amount of wood cut annually, and the principles on which the forest should be maintained; and he should draw up a short plan for its management during the first ten years.

- 2) The owner of the forest makes a wood-felling contract, in the name of the savings bank or at its order, and has it registered at the office of the competent court.

- 3) He then remits to the savings bank the registered contract and the valuations, together with his request for a loan and the other documents necessary to a grant of credit secured by a mortgage on land. A deed of pledge is then drawn up according to a form fixed by the savings bank.

- 4) Before the owner of the forest can receive his loan he must remit to the savings bank a policy insuring the forest against fire. The recently formed Union of Mutual Insurance against Fire of the Forest Owners of Finland has inserted in its by-laws a paragraph which contemplates forest credit, and guarantees an indemnity to anyone who has lent money to the owner of a forest in return for his deed of pledge.



Part IV: Agricultural Economy in General

AUSTRIA AND HUNGARY.

AGRARIAN TAXES IN BOSNIA AND HERZEGOVINA.

OFFICIAL SOURCES:

VERWALTUNGSBERICHT FÜR 1906-1911 (*Report of the Administration 1906-1911*).

OTHER SOURCES:

SCHMID (Dr. F.): Bosnien und die Herzegovina unter der Verwaltung Oesterreich-Ungarns (*Bosnia and Herzegovina under the Administration of Austria-Hungary*). Leipzig, 1914.

DMITZ (L.): Die forstlichen Verhältnisse und Einrichtungen Bosniens und der Herzegovina (*Forestal Conditions and Institutions of Bosnia and Herzegovina*). Vienna, 1905.

§ I. AGRARIAN TAXES IN THE PERIOD OF TURKISH DOMINION.

In the period of Turkish dominion agriculture in Bosnia and Herzegovina was burdened with the following dues:

- 1) the tithe,
- 2) the *Sulus* and *Verghia* taxes,
- 3) the taxes on live stock.
- 4) the military taxes.

We will examine them separately:

1) *The tithe*. — This agrarian tax, called "Pscior" in the language of the country, burdened land strictly proportionately to the quantity of its products. In the beginning it could be considered to be a species of due which the occupiers of the land had to pay to the State, that is to the institution which the Koran declared and recognized to be the sole owner of the soil, it being possible to grant only a usufruct in the soil to private

individuals. The price of such grant, paid to the State in exchange for the enjoyment of a right of usufruct, should, as the Koran conceived it, represent a definite acknowledgement on the part of the occupiers of the State's sovereign right in the soil. This tribute transformed itself gradually into the tithe.

In the first years of the Turkish dominion the tithe did not fall equally on all usufructories, who might be either Mahometans or Serbs converted to the religion of Islam. The right of the former to the usufruct of the land derived from the services they had rendered, themselves or in the person of their ancestors, to the State, as warriors or administrative officials, and they were merely obliged to pay to the Treasury the tenth part of the gross value of the products of the soil. As regards the second class of taxed persons — the Serbs who because they had been converted to Islamism had been able to preserve their position as usufructories of the soil — they were obliged to pay to the State a tax greater than the tenth, representing 20 per cent., 30 per cent. and even 50 per cent. of the gross value of their products. This difference in the value of the tithe — according to whether it were levied from usufructories who were Mussulmans by race or from Serbs converted to the Mussulman religion — tended to be reduced with the passage of time so that at the time of the Austrian and Hungarian occupation it had entirely disappeared; and all the usufructories, without distinction of race or religion, were in fact obliged to pay a tithe corresponding to 12 $\frac{1}{2}$ per cent. of the gross value of the products of the soil.

It should be noted that this tribute did not always go directly to fill the coffers of the State. In the early period of Turkish occupation the tithe was levied by the military authorities whom it placed in a position to meet the expenses incurred for the maintenance of the army they commanded. Sometimes on the other hand the right to levy the tithe was granted to the so-called *Vaconts* (the property of the churches and religious foundations); but such a privilege tended gradually to die out, until at the time of the Austrian and Hungarian occupation the number of the *Vaconts* which still enjoyed in Bosnia and Herzegovina the right of levying the tithe in place of the State was small.

Having thus generally explained the tithe and the right of levying it we will note more particularly the variations which its value has undergone. Until 1839 it was assessed at the rate of 10 $\frac{1}{2}$ per cent. of the gross value of the products of the soil; after this year it was increased, and in 1878 it represented 12 $\frac{1}{2}$ per cent. of that value. The tax so augmented was distributed as follows: 10 $\frac{1}{2}$ per cent. represented the tithe properly so-called, 1 per cent. was given to popular education, $\frac{1}{2}$ per cent. to the *Zirat* bank, and the remaining $\frac{1}{2}$ per cent. to armaments.

The tithe was paid in kind, because the natural economy of the country always made difficult any attempt on the part of the Turkish government to raise such a tax in money.

In the early period of the Mussulman occupation and as long as there was a state of war in the country the Turkish government found it convenient to levy the tithe directly, the goods thus obtained being destined for

the feeding of the armies in the field. When the acute period of hostilities against the populations of the occupied territories ceased, the Mussulman government thought it well to change this system of levying the tithe. They had recourse to the method of granting to private persons, in return for a fixed sum of money, the right of collecting this tax from those liable to it. Thus collectors for the Treasury were instituted who assured to the State the payment of the tax; and the collectorships were let out at public auction, a sum proportionate to the tax's value being paid as a guarantee.

Ordinarily the value of the tithe incident on every single village was first established, being calculated on the basis of the harvests obtained in preceding years and the harvest anticipated in the current year. When the value of the tithe had thus been fixed the price of a lease thereof was established, that is the price which the grantee of the right to collect the tithe in the name of the State ought to pay to the Treasury, and then the public auction was held.

The cautionary sum which the grantee had to pay in guarantee of his engagements could be in the form either of cash or of State bonds. The actual payment had to be made in three, four or six instalments.

As regards the mode of levying the tax, the individuals liable to it might have recourse to one of the following methods:

a) That of the so-called "proof by single sheaves". By this system the cultivator of a given area of land subject to the tax cut down ears of grain to form a certain number of sheaves. From these a few were chosen and were threshed, and thus the average quantity of grain produced was ascertained. This datum and the number of the sheaves of grain gave a basis for the assessment of the tithe payable by each person liable to it.

b) The second system consisted in taking into account on the one hand the value of the various tithes levied in the preceding year on a given area, and on the other the anticipated value of the harvest in the current year.

c) When the third system was adopted a person liable to the tax was obliged to declare, as soon as his corn was threshed, the quantity of grain he had obtained from the land he had cultivated. After this declaration had been made the collector of the tax investigated its accuracy on the spot and then fixed the amount of the tax.

This last system was certainly the most just; for it came nearest to rendering possible the exact determination of the quantity of the products of a holding subject to the tithe-tax, and therefore of the just amount of this tax incident to such holding. It had however a double drawback, that of necessitating a minute and not easy inspection on the part of the collector, and that of depriving the cultivator of all liberty of action during the time of the harvest. The other two systems were both of them more advantageous to the person liable to taxation, in that they left him more liberty of action at harvest-time, but they had from the State's point of view the special drawback of allowing only of an approximate and anticipatory computation

of the products of the soil, on the basis of which to establish the tithe. Thus these systems always allowed of possible errors in calculation, which were injurious either to the persons taxed or to the collector authorized to levy the tax on the State's behalf.

Persons liable to the tax included not only the cultivators of the soil (*kmeti*) but also the landowner (*aga*), each of them proportionately to the quantity of products to which he had right. From the whole quantity of the products of a given holding that part which belonged to the State as the tithe was taken, one of the three systems described being applied. The remaining products were then shared by the *aga* and the *kmet*, three fourths going to the latter and one to the former.

While the tithe was levied directly by the State, in the manner and for the reason which have been described, it was incident only on land bearing grain crops. All other lands — whether woods, kitchen-gardens, meadows or flower-gardens — were exempt from the tithe, while vineyards, orchards and tobacco plantations were burdened with it only when their products were in excess of the needs of the cultivators and their respective families and were intended for sale.

After the State's right of levying the tithe had been transferred to private collectors the condition of those liable to the tax became worse. This alteration in the method of collecting the tax was in fact accompanied by another alteration: only meadows and woods remained exempt from the tithe, they being otherwise burdened with taxes, and it was levied without distinction on all other lands.

In the period between 1865 and 1871 the Turkish government made various attempts to introduce a new reform into the system of levying the tithe, namely to substitute the method of direct levy by the State for that of the farming by private collectors; but none of these attempts had any practical result.

There are no official statistics as to the total value of the tithe levied on the lands of Bosnia and Herzegovina in the period of Turkish dominion, but Dimitz places it at 6,000,000 francs (1).

2) The "*Sulus*" and "*Verghia*" taxes. — Besides the tithe two other taxes burdened landed property in Bosnia and Herzegovina in the period of Turkish dominion. The first fell only on real estate (land and buildings), the second only on revenue.

The *Sulus* tax was paid only by the *agas*, the owners of the land and buildings. The system adopted for its levy consisted in the fixing of a total value for each department and the division of this among the various persons liable to the tax, proportionately to the real estate they respectively possessed.

The *Verghia* tax on the other hand fell, as has been said, only on the revenue of each person liable to it, that is of both the *aga* owners and the cultivating *kmeti*. As in the case of the *Sulus* so in that of the *Verghia* the Turkish government fixed for each department a total value which was divided among the various persons liable to the tax in accordance with the wealth of each.

In the second half of last century attempts were made to substitute for these two taxes a single land tax based on the French fiscal system. The attempts had little effect, and at the time of the Austrian and Hungarian occupation the *Sulus* and the *Verghia* taxes still existed quite unmodified in the following departments: Banja-Luca, Focea, Cepce, Gazco, Ljubinjé, Trebinje, Petrovaz, Bihatech, Sanskihost, Prijedor, Cazin and Crupa.

In the departments in which the indicated reform was applied the *Sulus* and *Verghia* taxes were superseded by other burdens on lands and buildings. The tax on the revenue of the *kmeti* was entirely abolished.

When the reform in question had been introduced the new taxes on the land were paid by the respective proprietors in proportion to the estimated value of their holdings.

In the case of rural property burdened with the tithe (meadows and woods) the tax was assessed at the rate of 10 per cent. of its value, in the case of other property at that of 4 per cent.

A first tax was incident on buildings, assessed on the basis of their respective estimated values. Only the houses inhabited by the *kmeti* were exempt. Besides the taxes which have been mentioned two others fell upon buildings, one being destined for public education and the other for military expenses.

3) *The taxes on live stock.* — These taxes fell in the period of Turkish dominion only on sheep, goats and pigs, cattle and horses being exempt. The reason for this distinction is unknown. Some have wished to explain it by pointing out that horses and oxen were employed for labour and thus were a means to agricultural production, which was already taxed, and that their exemption was therefore logical.

The tax on live stock amounted to three *grosh* on each sheep and goat and five on each pig. No tax fell on lambs and kids less than a year old.

4) *The military taxes.* — No parallel can be established between the military taxes imposed by Turkey in the period of her domination in Bosnia and Herzegovina and those which the government of Austria and Hungary now exacts from all individuals who, owing to a physical or other defect, are unable to bear arms. Under Turkish dominion military service was considered to be at once the duty and the right of all male persons of the Mahometan population. This right and this duty were not considered to belong to persons of another religion, because, in Mussulman theory, the right to form part of the armies who have to defend the religion of Mahomet includes a species of moral capacity not held by subject peoples and those of a different religion. This conception was responsible for the fact that male persons of Bosnia and Herzegovina were debarred from the honour of bearing arms in the defence of Islam and thus became liable to the payment of a military tax which had all the characteristics of a poll-tax.

But in addition to the military tax falling on the Slav male population of non-Mahometan faith, there was a tax of another kind which was paid by those Mussulmans who for some particular reason wished to be exempt from military service; such exemption never being granted to a Mussul-

man who pled his unfitness to bear arms but only in return for the payment of this tax.

The male Musulman population was called to arms three times at different periods. In the case of each summons the tax payable for military exemption corresponded to 50 Turkish pounds (1). As regards the non-Mahometan population the tax fell on groups of persons in a single locality and not on individuals. Each group of a hundred males of a given village had to pay 50 Turkish pounds, which sum was afterwards divided among the individuals composing such a group in accordance with the wealth each possessed. Priests and males under fifteen or over seventy-five years old were exempt from all military taxes.

§ 2. AGRARIAN TAXES AFTER THE OCCUPATION BY AUSTRIA AND HUNGARY.

The Austrian and Hungarian government, immediately after the occupation of Bosnia and Herzegovina, proposed to solve the agrarian problem as well as possible, and placed therefore at the head of an economic programme the reform of taxation and the redemption of the land in the interests of the *kmeti*.

With this aim the opportune work of forming a cadaster was undertaken without delay ; but the nomination of Kalaj as governor of Austria and Hungary caused both the schemes for the reform of taxation and the solution of the problems relative to the redemption of land from ancient feudal bonds to be shelved, because they were contrary to the principles on which the new governor's economic policy was founded.

The fundamental basis of this policy was the maintenance at all costs of internal peace, in homage to which principle Kalaj renounced all projects of reform, however necessary they might be to the country's economic progress. He feared that he might come up against ancient customs, disturb local interests, and thus occasion internal disorder, and he was convinced that taxation could not be reformed without arousing discontent among the whole population : thus during the time of his administration he adhered to Canard's theory that any tax in existence in a given country is good for the sole reason that it has become intermixed with local customs and the local relations connecting the interests of individuals ; and therefore that any new tax is — as a matter of logical sequence — bad because of the sole fact of its novelty. Accepting this theory as a maxim Kalaj did not nevertheless absolutely renounce all reformation but had recourse to half measures which could not produce any really noteworthy advantage. He excluded all that could represent a truly radical reform of taxation and contented himself with retouches which did little to relieve the ancient system in force in the country.

(1) Turkish pound = 18.2272s at par.

During his tenure of office, which lasted for more than twenty years, he introduced in fact only the following changes into the system of taxation inherited from the Turkish government :

1) For the payment of the tithe in kind a payment in cash was substituted. The basis on which this was effected was the market price of the various articles of merchandise representing the tax in kind, and the quantity of these produced on a given holding.

2) For the collection of the tithe by the medium of responsible collectors, as described, the system of direct collection by the State was substituted.

3) The tithes still payable to *Vacouf* properties were made payable to the State. This was effected gradually. At the time of the Austrian and Hungarian occupation these entities so privileged still existed, although their number was small, and until 1911 they are mentioned in official reports.

It should be noted that all the retouching of the old Turkish system of taxation effected under Kalaj's administration was profitable only to the *agas*, to whom the *kmeti* were by old feudal bonds obliged to give a part of the products of the soil they cultivated, that is a tribute in kind, called *Hac* in the language of the country. When Kalaj had introduced his reform it fell to the governor's agents to fix for each holding the quantity of its produce and the share of this which belonged to the State as a tax. This calculation, which had an official source and therefore was not much subject to error, afterwards served the *agas* as a sure basis for establishing the amount of the products of the soil due to themselves from their respective *kmeti*. The latter, as has been said, derived no advantage from the reform of taxation in question.

After the death of Kalaj his successor Burian devoted himself to the task of reforming taxation. He took for point of departure the reform of the tithe, which was considered to be the worst of all the forms of taxation. At first he thought of substituting for it a tax on revenue, but fearing that too rapid a transition from one system of taxation to another might arouse discontent and disorder in the country he preferred a provisional measure, the introduction namely of the so-called *tithe in the block*. This is the name given to the following system :

In the case of every single piece of land to be taxed its average gross product in the period between 1895 and 1905 was ascertained. Such average was multiplied by the average price of a unit of the various products ; and thus a figure was obtained the tenth part of which represented the tax due to the State and payable in money.

For motives of prudence this new system of taxation was introduced in 1905 only in two or three villages of each department. The result obtained was so satisfactory that in the next year — 1906 — the law was passed in virtue of which the system of the *tithe in the block* was adopted as the official system of taxation applicable to the whole country except the districts which still lacked a cadaster.

This reform met with favour above all from the *kmeti* because the dif-

ference between the quantity of products which they obtained from their respective cultivated holdings, and the quantity of such products officially certified by the agents of the State, remained exempt from any tax to the Treasury and any feudal contribution to the *agas*,

Among the different secondary reforms adopted, other than that of the *tithe in the block*, we note the following :

1) The perpetual exemption from every tax on their products of vegetable and other gardens near dwelling-houses, if they have an area of no more than a *dunum* (1).

2) The temporary exemption for ten years of lands recently brought under cultivation.

3) The temporary exemption from taxation of lands granted to colonists, whether these belong to the population of the country or be of foreign nationality.

4) Partial or total exemption from the *tithe* in bad years.

5) The total exemption from taxation of the products of vegetable and other gardens cultivated by soldiers or fiscal agents, provided such products be not intended for sale.

6) The total exemption from taxation of lands of the State cultivated with a view to their improvement.

It may be stated more precisely that the system of taxation here described is applied, with the exceptions previously indicated, to products of all arable lands and to those of apiaries. As regards woodlands these also are burdened with the *tithe in the block*, calculated on their net return based on the data in the cadaster.

The reform of taxation which we have described was initiated in 1905 and terminated in 1907. Its application was prorogued only in the four departments of Biletsch, Bazco, Ljubinje and Trebinje because all these lacked a cadaster. The expenses relative to the reform of taxation amounted to 1,600,000 crowns (2) As regards the expenses of collection these were by the new system diminished by 70 per cent. in comparison with those involved by other methods of collecting taxes.

The old *Sulus* and *Verghia* taxes, to which we have already alluded and the abolition of which was begun while Turkish domination was still in force, were little by little replaced by taxes on returns. In fact in the official report for 1911 these taxes are mentioned only in relation to the five departments of Zepč, Gasko, Foca, Ljubinje and Trebinje, while in all the others the new taxes on land, buildings, moveables and the returns from labour had already been applied in this period.

The new land tax was planned as an improvement to be introduced into the system of collection represented by the *tithe*. It should be regarded as the beginning of the reform of taxation in Bosnia and Herzegovina, a reform which aims at causing the incidence of taxes on proprietors and not on cultivators and at making the real value of the land the basis of taxa-

(1) 1 *dunum* = about 1091 $\frac{1}{2}$ square yards.

(2) 1 crown of gold = 10.0809 *d* at par.

tion. The tax in question is one of 4 per thousand. In the district of Banja-Luka it is calculated on the net return of the land as given by the cadaster and it is there 3.6 per cent.

The tax on buildings has the same characteristic features as that on land. Like the latter it falls only on the *aga* proprietors while the *kmets* are exempt from it. Buildings newly erected are not taxed for a period of from five to ten years.

The basis of the tax in question is the estimated value of the buildings. Since all such estimates made in the time of the Turkish government are entirely inexact, recourse was had to a commission charged to rectify errors in calculation and to establish a new and more accurate general estimate of the property in question, and at the same time to make a cadaster. This tax is one of 4 per thousand of the estimated real value of taxable buildings, or — if they be let — of 4 per cent. of their rent.

As regards the tax on live stock it may be said to be the same as under the Turkish government. It falls only on sheep, goats and pigs; cattle and horses being exempt from it. Its amount has however been modified with the intention of promoting the rearing of sheep and diminishing that of goats. The amount is as follows :

For every sheep in a flock 20 hellers (1) are paid, but for each person liable to pay the tax ten sheep are exempt from it, as are all lambs. Where goats are concerned the tax varies, with districts and with the number of the goats, from 40 hellers to a crown. Moreover the tax is progressive : for the first ten goats it is 40 hellers, for the second ten 45 hellers, and so on. This rate is not applied in Herzegovina. For kids under a year old no tax is paid. Pigs are taxed at the rate of 60 hellers each. The tax on live stock is in general paid in three instalments, in March, April and May.

The amounts of the various taxes examined are indicated in the following table which has reference to 1910 :

	Crowns
Total value of tithe	8,853,000
“ “ “ the taxes <i>Sulus</i> and <i>Verghia</i>	69,800
“ “ “ “ tax on land	847,300
“ “ “ “ buildings	1,028,900
“ “ “ “ sheep and goats	779,800
“ “ “ “ pigs	67,000
	<hr/> 11,645,800

A part of the total value of all the taxes, seen by this table to be 11,645,800 crowns, falls only on the agricultural population, namely

(1) 10 hellers = about 1d at par.

10,543,100 crowns, which sum comprises the tithe, the land tax and the tax on live stock.

The remainder, namely the sum of the tax on buildings and the *Sulus* and *Verghia* taxes, falls both on the agricultural and the urban populations.

Both also pay indirect taxes. It is very difficult to determine in what proportion these two classes of the population of Bosnia and Herzegovina contribute respectively to the payment of indirect taxes. Only an approximate calculation can be made, based on statistical data relative to the total sum of the indirect taxes levied in 1910. The following table results :

Taxes on tobacco	17,429,000
Dues and registration	4,063,835
Taxes on sugar	3,977,017
" " salt	3,259,900
" " spirits	2,647,207
" " mineral oils	809,555
" " beer	569,688
" " gunpowder	33,451

As appears from these statistical data, indirect taxes in Bosnia and Herzegovina fall on articles of general consumption, namely such as are consumed as much by the rich as by the poor population, some of them — like salt and spirits — more by the poor than by the rich. We may therefore conclude with the statement that the agricultural population of Bosnia and Herzegovina is burdened with indirect taxes in proportion to its numbers. The taxed portion of the population may, according to the last census, that of 1910, be stated to constitute 86.57 per cent. of the whole.

The statistical table which follows shows the movement of indirect taxation from 1881-82 and through the succeeding quinquennial periods until 1910 :

	1881-82	1885	1890	1895	1900	1905	1910
Tithe	4,854,000	5,925,000	8,113,000	8,404,000	7,733,000	8,976,000	8,853,000
<i>Sulus, Verghia</i>	323,100	356,600	357,700	69,700	69,200	69,400	69,300
Taxes on lands	586,400	465,000	479,200	700,400	719,500	759,300	847,300
» » buildings (1)	219,100	215,000	273,600	429,900	578,400	603,500	739,200
» » » (2)	59,300	68,300	86,600	124,300	149,100	227,200	286,700
» » sheep & goats	442,200	708,200	691,100	892,300	811,300	820,000	779,500
» » pigs	77,900	102,500	121,700	140,800	95,400	86,100	67,000
» » tobacco	3,500,900	4,746,000	8,512,000	9,533,000	10,027,000	12,278,000	17,429,000
Various taxes	716,188	1,268,124	1,349,899	1,582,691	1,923,113	2,381,707	4,063,835
Taxes on sugar	—	—	—	345,994	1,696,759	2,765,000	3,977,017
» » salt	—	—	2,146,000	2,264,000	2,639,000	2,899,000	3,259,900
» » spirits	52,000	159,000	696,000	1,234,000	1,603,000	1,609,000	2,647,207
» » mineral oils	—	—	—	610,904	575,146	471,000	809,555
» » beer	13,130	22,962	74,772	216,876	282,000	395,000	569,685
» » gunpowder	—	30,651	39,373	24,329	37,511	33,151	33,451

(1) Taxes on the value of buildings. (2) Taxes on the rent of buildings.

GREAT BRITAIN AND IRELAND.

AGRICULTURE AND THE WAR.

SOURCE:

THE JOURNAL OF THE BOARD OF AGRICULTURE, Vol. XXIII. Number 8, London, November 1916.

At Taunton on the 28th of last October the members of the Somerset War Agricultural Committee and others were addressed by Lord Crawford, then President of the Board of Agriculture and Fisheries.

Lord Crawford first alluded to the difficulties at present attendant on agriculture, those connected with labour and tillage, with the late harvest which meant a late autumn, and above all with the feeling of uncertainty which hung over agriculture.

It was the object, not only of farmers but also of the whole country in relation to agriculture, to obtain more food. Ten years ago agriculture had been looked upon by the country at large as an industry; now it was recognized to be a source and foundation of national strength. Ten years ago agriculture had been merely a commercial occupation, and not always a very brilliant one; now it was one of the weapons by which Britain meant to win the great war. To realize the want for more food was almost a discovery to the British public. Hitherto food had reached the country somehow and from somewhere — it had not been the business of the consumer to enquire how, when or whence it came. Too often he had closed his eyes to those who pointed out the danger of allowing agriculture to be neglected and to decay. Now he was beginning to find not only that more food was needed, but also that the source and origin of that food was one of its essential values when it was required by the consumer.

Every quarter of corn that was imported weakened the country and every quarter grown at home conferred strength on the country. If corn were bought abroad it was paid for abroad. During the war the one transaction of all others which it was desirable to avoid was that of sending money abroad to purchase articles which could be produced at home. Such a course weakened the British exchange, diminished British financial resources;

and the financial resources of the country were one of the great weapons with which Britain was fighting the war. To buy corn abroad was, further, to make a call upon the mercantile marine which could be used for more profitable transactions; and it was to requisition fresh labour after the corn had been imported, for unloading at the docks, reloading into trains and distribution. Thus the importation of corn stuffs during the war was not a strength but a weakness to the whole country.

Wheat. — The country depended on two fundamental foodstuffs — wheat and meat — and the last harvest had shown a serious decrease in the area of wheat as compared with 1915. Last summer, in England and Wales alone, the area under wheat which had been harvested had been less by more than a quarter of a million acres than in 1915, and the average yield over the reduced acreage would probably prove to have been considerably less than in that year (1).

It was essential, with a view to the prospects for next summer, that the maximum area should be planted with wheat in the coming months. Although it was probably impossible to match the high results of 1915, what could be done should and must be done. To plant wheat would pay the farmer, for prices would be remunerative next August even if peace were declared at Easter, and it would pay the country. It should be remembered that the only basis on which the Board of Agriculture could press for the retention on the land of all possible labour, was that the labour now available was being used to the utmost in the national interest, regardless of whether the ultimate profit were going to be large or small.

Live Stock. — In Somerset the work started by the Board of Agriculture in connection with the Live Stock Improvement Scheme had been taken up as successfully as in any county in England, if not more so. The first grant under the scheme was made only six months before the war broke out, yet Somerset was now earning the maximum grant which the Board was entitled to pay, namely £1,000 a year.

The live stock societies in the county owned seventeen subsidized boars, averaging £7. 6 s. in value a piece, and thirty-four bulls averaging over £40 in value a piece, and their record as to Shire horses was good. The improvement effected by the Live Stock Scheme was illustrated by the fact that these bulls replaced others, existing before the scheme, of which the average value certainly did not reach £25.

The first milk recording society under the Board's scheme was established at Cadbury in April 1914 and its members and others had realized that a milk recording certificate had a definite commercial value. There were two other milk recording societies in the county; and all three had — in spite of shortage of milkers and other war difficulties — made satisfactory progress.

(1) The preliminary statement issued by the Board of Agriculture on 1 November 1916 showed the total production of wheat in England and Wales in 1916 to have been of 6,942,559 qurs. — that is less by 1,500,000 qurs. than in 1915 but more than in 1912 or 1913.

This improvement in the matter of live stock had not only a local importance, for live stock was going to present one of the great problems of the future. It was not yet sufficiently realized in the country how much more, as time went on, Britain would have to depend on her own resources. A very short time ago the United States of America had been an enormous exporting country. Per head of the population it was the biggest meat-eating country in the world. Great Britain was the third greatest meat-eating country in the world and the largest in Europe; her requirements, already gigantic, showed every sign of increasing; and while that process was going on great exporting countries like the United States of America were finding it more and more necessary to reserve their meat for their home populations. Therefore although new markets would naturally tend to develop elsewhere — in America or Africa, for instance — fresh demands would be made upon the stock owners and stock breeders at home. There had too been the ravages of war — the flocks and herds in certain parts of Europe had been devastated (Germany herself had, since the war had begun, lost a million head of stock). The obligation upon the nation to use every means at their disposal to supplement and to maintain their flocks and herds was plain.

On 5 June 1916 the annual records had been compiled by the Board of Agriculture. There were then in England and Wales a larger number of head of cattle than at any recorded date. So strong an economic position after two years of war was astonishing. In the succeeding four months the figure had probably been lowered; yet during war time, and in view of the extraordinary figures discovered on 5 June, the country was entitled to some extent to draw upon its capital. It was greatly to be hoped however that, although war pressure would drive in that direction, agriculturists would not yield to the ready temptation of high prices and diminish or disperse their herds. A good herd was now a good asset but it would twelve months after the declaration of peace be a still greater and more precious asset. Every head of cattle which could be maintained over the war was strengthening the country as a reserve during the war, and would greatly add to the strength of the country and its power of recuperation after the war.

Wheat, live stock and crops depended however, alike, on adequate labour. The speaker stated that there was plenty of evidence of the inadequacy of labour to maintain the normal standard of cultivation.

Labour Shortage. — The official returns of 5 June 1916, already mentioned, showed an increase of 112,000 acres in the land lying in bare fallow this year, as compared with the previous year. The speaker was in no doubt that this increase was due to labour shortage; and bad labour shortage meant bad cultivation, bad cultivation meant poor yields and meant dirty land, which meant that two or three or even four years would have to pass before the qualities of the soil could be fully restored.

The army said that it wanted more men, the nation that it wanted more food, the farmer that he wanted more labour: yet we were not asked to reconcile the irrenconciliable.

War Office Circular, 4 October 1916. — In the circular sent out by the Army Council on 4 October 1916 it had been decided that, subject to certain conditions, "no more men from amongst those now employed in agriculture will until January 1st, 1917, and in the case of men whose whole time employment on a holding is necessary for maintaining milk production, till the 1st of April 1917, be called to the colours, except in return for men released from the colours for work in agriculture". This was so much gained, and so much time in hand which was valuable time for husbandry. For every acre of wheat sown in the spring in the country as a whole, fifteen acres were sown in the winter. The ploughman was indeed as necessary after as before 1 January, but wherever it could be shown that he was necessary and within the scale for the cultivation of the land the Board was anxious that he should be retained.

War Office Census. — The War Office was going to take a census of male and female workers employed on agricultural holdings; and the returns were to be received about 15 November. The object was to enable the military authorities to survey the whole position of agricultural labour and ascertain whether the available labour were sufficient, excessive or deficient. It was the speaker's impression that the census would show that not only were few men employed over the so-called Labour Scale but that also in many districts the number of men employed was well below that scale. It was not and never had been a fixed, rigid rule. It was intended to serve as a general guide to the authorities, not necessarily versed in agriculture at all, as to what labour should be properly left upon the farms in order to ensure a reasonable scale of cultivation.

The Labour Scale. — A question had been asked as to whether the Labour Scale were permanent. Nothing in time of war could be said to be permanent, but the Labour Scale would not be altered unless the military situation demanded its alteration. Its terms were set out in full in the circular lately issued by the War Office on the subject. In the official book on registration and recruiting issued by the War Office to their officers the Labour Scale was also set out, and was preceded by this announcement: "The necessity of procuring food, if possible in excess of the usual production, should be appreciated by all recruiting officers and military representatives". Elsewhere it was said: "The military representatives are specially enjoined to watch the list of certified occupations, and to carry out the spirit of the instructions laid down by the various departments concerned". In the same way the Local Government Board had said in their recent communication to the tribunals: "Particular attention should be paid to the official list of certified occupations, which states the classes or bodies of men engaged in agriculture whose work has been certified after consultation with the Army Council as being of national importance". The Labour Scale was a rough and ready guide but it represented the minimum amount of labour necessary for proper husbandry in time of war. The War Office could not give a guarantee that the Labour Scale would be maintained intact, but the quotations from their own circulars showed that they understood how necessary the Labour Scale of employment on that stan-

dard was for the due cultivation of the land. The farmers must trust the Board of Agriculture to do their utmost, even if and even when the utmost of a government department did not fulfil all their expectations.

The Board of Agriculture had long since laid their whole case before the new authority, called the Man-Power Distribution Board, which had been set up by the government. The Board of Agriculture investigated every case of hardship sent up to it, cases of hardship — and sometimes indeed cases of injustice — being unavoidable. Since in England and Wales there were no less than 1,850 separate Tribunals, disparity of treatment was inevitable. It was however the duty of the Board of Agriculture — and one which they fulfilled — to refuse to intervene in favour of the farmer when they did not think he was playing the game by the country and by the army.

Substitution of Labour. — The War Office proposed to withdraw no more men from among those employed in agriculture — before January or April as the case might be — unless substitutes were sent to replace them. Substitution was to take place in all industries, not only in agriculture. In every district a Substitution Officer was going to be appointed by the military authorities; many had already been appointed. The Substitution Officer had prepared lists of possible substitutes, who were men now serving in the Reserve — soldiers who were, for instance, looking after railway bridges or watching munition works. The lists of substitutes were classified according to districts, and many were actually being sent out to Substitution Officers in different parts of the country. The Board's representative or any authorized person was at liberty to see these lists: he could look up a particular districts and see what reservists could be sent to replace young and able-bodied men now working on its farms. The substitute might be less efficient than the man he replaced. He would probably be twenty years older; but he would be a trained agriculturist and would belong to the district, for the Board of Agriculture had told the War Office that it was no good to send a Yorkshiremen to work in Dorsetshire or a Dorset man to work in Yorkshire. In many cases it was hoped to arrange that the reservist would come back to his own village and his own home, where his family was, and work in the occupation in which he was working on the day war broke out. As regarded his wages, it would be the duty of the Board's agricultural representative and the Area Commander to see that these were fair and in accordance with the rates ruling in the district.

Adjustment of Differences. — Any difference which might arise between a farmer and a reservist would be dealt with by the Area Commander, if necessary in consultation with the agricultural representatives. If the difference could not be adjusted and the man were recalled to the Reserve, the War Office had promised to do their best to ensure that another substitute would be found, if it were clear that the fault was not on the side of the employing farmer. The following sentences in the War Office circular to officers commanding recruiting areas should be noted: "It must be borne in mind in dealing with the whole of this question that all parties concerned must be prepared to work together if the scheme is to be successful. The farmer

should be informed of the real urgency that exists for general service men when he is approached with a view to substitution. The man should be instructed that he is being sent back to work at agriculture, primarily not for his convenience or advantage but to assist his country in the war; and that petty discomforts inseparable from such a scheme are not to be made the subject of frivolous complaints to officers commanding areas, or to be used as an excuse for not rendering the best service possible to his employer".

Dilution of Labour. — Dilution of labour was essential to success in the war. It was not adequate in England as it was in France. To the speaker it had been a miracle to see how French women and children and old French people had succeeded in maintaining the standard of cultivation in France right up to within a few hundred yards of the firing line. It was a marvellous tribute to the perseverance and to the courage of that race, and all who had been to France and any soldier who had returned would tell that it filled the British army with respect and admiration. The same thing could not be achieved in England but a great deal could be done towards it. Labour had not been too plentiful at the beginning of the war, and since then the number of labourers had enormously decreased. At the outset only nine per cent. or so of the male population had been engaged in agriculture. There still remained part of a nucleus, with which the country started when the war broke out, of men under and over military age. At the last census there had been 153,000 persons occupied in agriculture below the age of eighteen and 405,000 over the age of forty-one — in other words 558,000 persons out of a total agricultural figure of 971,000 not subject to military duty. Many of these had been lost. Some had since the census attained military age; others, above military age, had gone elsewhere — perhaps, indeed, joined the army as volunteers or as reservists. But it should not be forgotten that there was that central nucleus around which the diluted labour must be distributed.

Occasional Soldier Labour. — The speaker thought the fact had been rather overlooked that soldier labour could still be obtained by farmers. Not only for the corn harvest but at any time the Employment Exchanges would send soldiers for occasional labour. A farmer living in the neighbourhood of a military station might apply directly to the commanding officer for military labour which he required at short notice and for a period not exceeding six working days. This might enable the farmer to take advantage of fine days or short intervals of fine weather suitable for work. Not more than four consecutive weeks' furlough could be given to any one man obtained through Employment Exchanges.

Convalescent Soldiers. — Convalescent soldiers were another source of labour. The depot at Chichester of the Royal Sussex Regiment — one smallish depot in one particular county — had in the last two years sent out convalescent soldiers for light agricultural work for the aggregate of 22,000 working days of labour.

Training of Children in Milking. — The question as to whether children could be employed and instruction given to them in milking was one primarily for the local Education Authority and belonged to their control

of secular education under Section 5 of the Act. If, when the local Education Authority thought it desirable to give such instruction, a satisfactory scheme for the purpose were submitted to His Majesty's Inspector, the Board of Education would be prepared to approve it experimentally.

War Agricultural Committees. — The last and one of the most difficult aspects of the labour question was that of women's work. The provision of local work must largely rest in the hands of the War Agricultural Committees and the Women's County Committees. Some of the War Agricultural Committees were as active, zealous and efficient as anybody could desire ; others were not. There were War Agricultural Committees in the country which did not meet for four or five months during the summer ; and they were committees which did not understand their duty and were not fulfilling their responsibility to the State. Where committees were weak they must be strengthened : members of them who could not attend must be replaced by others who could and would attend ; new members should be added whenever necessary, including, wherever possible, farmers of experience and judgement ; women should certainly be co-opted to the War Agricultural Committees, just as these should work in the closest co-operation with the Women's County Committees.

Women's County Committees. — The Women's Committees had hitherto been closely associated with the Board of Trade. The Board of Agriculture had been in conference with the Board of Trade and the conclusion had been reached that it would add to the efficiency both of the men's and of the Women's Committees if the latter were more closely connected with the Board of Agriculture than in the past.

There was great scope for the Women's County Committees and they had to overcome great difficulties. Women's work was not very easily obtained, and the committees would probably find that one of their first duties was to strengthen the personnel of the Village Registries. The parish was after all the local unit, and it was from the parish that the bulk of the women's work would be drawn. Although much valuable work had been done by importing women from other parts of the country it was on the local women that dependence must be placed, and they must be secured through the parish or the parish registry, a source of labour which must be supplied through the Women's County Committee. The speaker expressed a hope that the various committees would have the help of officers of the Board of Trade who would be called co-operating officers and work in co-operation with the Board of Agriculture ; and stated that his Board was approaching the Treasury to secure that the Women's Committees should have proper payment for their clerical and other work.

Women's Work. — Lord Crawford referred to the prejudice existing among farmers against women's work, and stated that it was natural in view of the short period for which, in most parts of the country, they had devoted themselves to farm work. It was not surprising that their efficiency, quite apart from physical conditions, should be less than that of trained men. The speaker was however convinced that if, with proper care and training, the women could be given a similar chance to that which

civilians had had since 1914 to become soldiers, the assistance they would render in the classes of agricultural work for which they were fitted would be proportionately great. Two years ago there was not a woman in the country who knew anything about making ammunition, but now it was upon the women that the nation largely depended for the output of shells and munitions. Even if their work did not conform to the standard to which agriculture was accustomed before the war began, it was necessary, in time of war, to use every class of labour which circumstances allowed.

Lord Crawford concluded his address by an appeal for "no waste, no relaxation of energy or effort, no reservation, no rest".

ITALIAN SOMALILAND.

LAND TENURE AND COLONIZATION.

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§I. GENERAL REMARKS. ADMINISTRATIVE ORGANIZATION OF ITALIAN SOMALILAND.

A. — General Remarks.

The peninsula of Somaliland lies between longitudes 42° (River Ueb, tributary of the Juba) and 51° 16' (Cape Gaurdafui), east of Greenwich, and latitudes 12° (Cape Alula) and 0° 8' (Gulf of Juba) N.

The territories in Somaliland included in the Italian possessions, protectorate or zone of influence extend as follows :

a) From the Gulf of Aden and on the east coast of Somaliland, bordering the Indian Ocean, from Bender Ziade (49° long. east of Greenwich) to the Gulf of Juba (about 0°15' lat S.) along a coastline of about 2,160 kilometres (1).

b) In the interior in the region comprised within the boundary line determined with respect to British Somaliland by the protocols between Great Britain and Italy concluded in Rome on 24 March and 15 April 1891

(1) 1 kilometre = 1093.633 yards.

and 5 May 1914, and with respect to Ethiopia by the treaty of 16 May 1908 which established the Italo-Ethiopian frontier in Somaliland.

As regards the area and population of this vast region, we will omit the figures given in the Statesman's Year Book and the Almanach de Gotha, by Ghisleri in his Atlas of Africa, by Supan (1), and others — figures which agree little with each other — and merely note that the last *Annuario statistico italiano* (2nd. series, Vol. IV, 1914) stated that the interior of the colony had an area of 357,000 square kilometres and a population of 300,000. In the *Relazione sulla Somalia italiana* — the report of the governor, G. De Martino, senator of the kingdom, for the years 1911 and 1912 (2) — the following specific data are given with regard to the area of Italian Somaliland :

Area of the colony in May 1910.	30,000 square kilometres		
" " " " after the new occupation			
in March 1912	25,000	"	"
" " " " after the projected occupa-			
tion	80,000	"	"
" " " zone of influence — in which gov-			
ernment nominates and			
pays chiefs — in 1912.	17,000	"	"
" " remaining territory in which chiefs			
have not yet been nominated . .	37,000	"	"
Total area of colony	189,000	"	"
Area of Protectorate	168,000	"	"
Total area of Italian Somaliland	357,000	"	"
Area of Italy	286,000	"	"

B. Administrative Organization.

At present Italian Somaliland is placed under an administration directed by the State and regulated by the law of 5 April 1908 no. 161 (3).

The whole colony is ruled by a civil governor, nominated by royal decree on the proposal of the Minister of the Colonies advised by the Council of Ministers.

The governor is represented in the various districts by Italian residents who act in his name and on whom the troops of their respective districts depend politically.

(1) *Die territoriale Entwicklung der Europäischen Kolonien* (The Territorial Development of the European colonies). Gotha, J. Perthes, 1906.

(2) Presented to the Chamber of Deputies at the session of 4 December 1912.

(3) Law of 5 April 1908 no. 161 on the organization of Italian Somaliland. *Gazzetta ufficiale del Regno* 30 April 1908, no. 102.

Italian citizens and those assimilated to them are subject to Italian law. Colonial subjects and those assimilated to them are judged according to the rules of Mussulman law (*scerio*) in force in the colony and customary native law (*testur*), and according to the various religious prescriptions and customs. The colony must submit its own balance-sheet to the approval of Parliament by the medium of the Minister of the Colonies. By a royal decree of 4 July 1910 no. 592 (1) the administrative order of the colony, which regulated in particular and in detail the military and civil staff (duties, admission, promotion, leave, prospective and actual, discipline, allowances) was approved. Finally by a governor's decree of 5 May and 30 November 1910, published in the *Bollettino ufficiale della Somalia italiana* (Nos. 1 and 5) the distribution and organization of government offices was determined.

The colony's territory was divided into zones, at the head of each of which was a commissioner's office (2). The political and administrative direction within the zones of their respective jurisdictions belongs to the district commissioners on whom the residents depends. The zones are constituted as follows :

1. District of High Juba
2. " " High Uebi Scebeli
3. " " Middle " "
4. " " Goscia and of Low Uebi Scebeli.

Each district is divided into residencies and vice-residencies, the number of which grows every year and which are instituted as soon as the political conditions of the various zones are such as to render the extension of the direct administration and of Italian authority useful and opportune.

The governor exercises his function through the medium of the government office and the residents.

In accordance with the governor's decree of 5 May 1910 No. 488, the following are within the competency of the governor's office :

1. The direction of civil affairs ;
2. Consultation, namely *a*) legal consultation, *b*) consultation as to public works, *c*) as to agricultural works.

The suppression of the office of the agrarian direction of Mogadiscio (governor's decree of 6 May 1910, no. 491) was contemporaneous with the nomination of a consultant on agricultural works who should be a member of the government.

There are also in the colony offices for the direction of matters of health, civil engineering, the port, the customs and the Post Office. Commercial inspectors may be assigned to places outside the colony's boundaries.

(1) Gazzetta ufficiale del Regno, 18 August 1910, no. 192. — Bollettino ufficiale della Somalia Italiana, 31 August 1910, no. 2.

(2) Cf. The *Decreto governatoriale* of 15 January 1912, no. 814, which approved the rules for local district administration (*Bollettino ufficiale della Somalia italiana*, 31 Jan. 1912, no. 1). For the institution of district commissariats see the *Decreti governatoriali*, 5 May 1910, No. 488 and 6 April 1912.

The colony's "experiment in agrarian management" was set up at Genale in Middle Scebeli with the best results, and there is another flourishing government experimental farm at Caitori.

§ 2. AGRICULTURAL CONDITIONS IN SOMALILAND.

Somaliland is a fairly fertile country. The most varied crops do excellently (dura, maize, beans, sesamum, greens of every kind, indiarubber, cotton, agave sisalana, palms, cocoa, papaw-trees, Kapok, forage grasses, etc.), and seeds sprout within a short time even on the most desert land, while so long as they are watered by rain or irrigation the plants rise to heights unknown elsewhere — a proof of the fertility of this soil which is formed of the alluvial deposits of centuries modified by meteorological agents, and provides potent elements of fecundity which few districts of East Africa can match.

Among crops which can give a large return cotton certainly stands first, both for quality and quantity. Dr. Onor, agricultural consultant for Italian Somaliland, expressed himself as follows with regard to the cotton obtained at Caitoi on the Scebeli (1) :

"The quantity of fibre obtained at Caitoi was considerable in relation to the cultivated area. From about 5,800 square metres (2) of cultivated land 459 kilogrammes (3) of fibre were obtained, which gives the high average yield of 790 kilogrammes a hectare (4). The cotton was shelled with rudimentary native appliances exactly like those I have seen in Apulia, which leave a small portion of the seed mixed with the fibre but not enough to cause any important variation in the figures I have given. The yield would have been even superior if parasites had not done damage after the first harvests. It is my conviction that in favourable years the harvest might surpass the rosiest expectations and surpass by much the average of 900 kilogrammes a hectare which is that of Egypt's maximum yield. This is easy to understand because in Benadir the vegetation is not impeded by a fall in the temperature at the time of harvest. Certainly the American average of 200 kilogrammes a hectare and the Egyptian average of 400 kilogrammes would normally be surpassed".

These remarks refer to Afifi cotton. The following information was given, in an interview reported in the English papers, by Mr. Henry Powell, director of British agriculture in the colony of British East Africa, a most competent person. In speaking of the experiments made by the State at Alessandra on the Juba he made the following statements, equally applicable to agriculture in the adjacent Italian colony.

(1) Statement No. 4 in *Relazione sulla Somalia Italiana per gli anni 1911 and 1912. Documenti*. Rome, Tipografia Camera Deputati, 1912.

(2) 1 square metre = 1.196 square yards.

(3) 1 kilogramme = 2.2 lbs.

(4) 1 hectare = 2.47 acres.

"A plot of about one acre was planted with Abassi cotton and completely irrigated, with the object of showing the capacity of the soil in the most favourable conditions and with the best possible agriculture. Over one half of the land the furrows were traced at intervals of thirty-four inches and the seed was sown on 6 May at intervals of eighteen inches. On the other half the furrows were made at intervals of thirty inches and the seed distributed at intervals of thirty-four inches on the same day. The development of the plant was marvellous on both areas. Mr. Filleul, vice-commissioner of the province, found however that the closer plants did best, owing to their greater density which allowed the bushes to resist the strong winds prevalent in Alessandra. Three thousand pounds of seeded cotton were harvested in this irrigated area (Alessandra) producing 1,000 pounds of fibre. In view of the purposes which it can serve the value of the fibre can be placed as low as 6*d.* a pound, at which rate the sale will produce nearly £30." Mr. Powell says that "existing conditions in Alessandra are however extraordinary". He recommends the place as the site of experimental farms, thus completely recognizing its great fertility. "From the analysis of a specimen of the earth made at the Imperial Institute it appears that the soil is perfect. In such a soil crops would rapidly flourish, helped by the fertilizing waters of the Juba. Thus the large yield of cotton is comprehensible, and it is to the interest of capital and of the colonists of all nations who ought to come to the country — and be induced to come to it — to give to Jubaland that energetic development for which she offers so rich a soil and such abundant waters". Such are the uniform conclusions to which agricultural experts in the British and the Italian colonies have come as to cotton growing, which is the true and the most productive form of agriculture in this land.

Other crops might be no less rich and promising if this extraordinary fertility of the soil were supported by an essential condition — irrigation.

Although native crops (*dura*, maize, *sesamum* (1) beans) can be grown in good years and bad years, with periods of abundance and periods of scarcity by means of the rain and the small canals which the natives assiduously make along the rivers, to receive the waters in times of flood, crops having a large industrial yield — such as cotton, indiarubber, tobacco etc. — cannot run the risk of more or less rainy seasons. The rivers — the true irrigating channels — are natural reservoirs against the variable rainfall, and since the rivers are full precisely in the rainy season a system of mechanical hydraulics is necessary, especially for raising and barricading the waters, in order better to regulate and utilize the rivers. The value of the colony cannot be realized by its agricultural and industrial development apart from the factor indispensable to such development, namely irrigation by canals, dykes and mechanical means. But on the other hand it is certain that the great productiveness can meet the expense these works would entail and richly compensate for it. It is also necessary to recollect that the River Scebeli provides sufficiently favourable conditions for uncultivated

(1) Half a hectare (1.235 acres) planted with *sesamum* on the farm of Genale produced a crop sold at Merca for 200 rupees — £13.6*s.* 3*d.*

hydraulic works which will regulate and dam its course, at least in the region of High Goscia which is among the most fertile in Somaliland.

The extent of land available for cultivation by white colonists is very great if the sparse population and the slowness of native agriculture be considered, but is limited not by area but by the volume of the waters of the rivers in the season of scarcity. This limitation can be partly corrected by artificial dikes and reservoirs, and also by the results which may be yielded by the investigations — as yet incomplete — into the nature of crops and the sowing seasons, and which will show how to derive the greatest possible profit from the rainfall, the irrigation from the rivers being regarded as a supplementary resource. It is clear that to reach this result it will be necessary to confront the vast and complex problem of a general utilization of the rivers, which now follow their unregulated courses, wandering through the plains as chance has willed it.

It would be interesting to review more fully the various crops which flourish or might flourish in the colony of Somaliland, but to do so would take us too far beyond the limits of this study. For information on this subject we refer the reader to Statement 4 in the Report on Somaliland of Governor De Martino (*Documenti*, Rome, Chamber of Deputies, 1912, pages 146-190) in which Dr. Romolo Onor very adequately analyses, in a study called "Notes on Agriculture", the facts as to the various crops, namely cotton, tobacco, maize, sesamum, arachidis, beans, forage grasses, india-rubber, kapok, cocoa-palm, agave sisalana and other lignous plants; and also to the Acts of the Second Congress of Italians Abroad, Vol. I. Part III. Pages 1431 - 1567 (Rome. Tip. Ed. Naz. 1911).

As regards natural vegetation, subdivided into forest and undergrowth, we will say briefly that the only forest properly so-called extends along the Juba for a distance of about a hundred kilometres and has an average depth of no more than 200 metres (1). It is clear therefore that forests of forest trees in Somaliland are very unimportant. Beyond this stretch along the Juba and others like it but of less area, found at several points along the Scebeli, there is in Benadir a monotonous arboraceous vegetation, little developed and very thorny, chiefly bushes. On the whole it is the opinion of competent experts that the resources to be derived from the spontaneous vegetation of Italian Somaliland are very limited.

B. — *The Raising of Live Stock.*

Somaliland is a country well suited to pasturage. There is excellent pastureland, all on the plain, and of interminable extent. Since the dry season lasts only for about four months in the year it is clear that the raising of useful live stock is the most important feature in the country's economy.

The capital in live stock is indeed considerable. Statistics which the colonial government has been enabled by the district authorities to prepare show that in Southern Somaliland alone there are about 764,000 head of

(1) 1 metre = 1.094 yards.

cattle, 305,000 camels and 216,000 sheep. Thus the quantity of live stock is indubitably such as to justify the care given by the colonial government to this form of wealth, and any initiative which might lead to its exploitation in the interest of the home country. In Somaliland Italy has an enormous breeding park which might, with suitable care and improvement, ensure to her an important annual contribution in the form of excellent butcher's meat. But in order that the value of this reserve may be realized its quality must be improved, by protecting it from certain constant and powerful agents of depreciation, and it must be more actively commercialized.

As regards cattle alone the average weight a head of the fully grown animals is more than 400 kilogrammes, and the market price was, before the war, 10, 16 and 24 Maria Theresa thalers (1) a head, according to whether the purchase was made in the interior or on the coast. That is to say that in the least favourable case, allowing for only 50 per cent. of the living gross weight and for the maximum price, meat was sold on the coast for 27 liras a quintal (2), without taking into account the skin, the price of which is being lowered. Indisputably these prices justify a confidence that there could be trade in meat with Somaliland and that, in view of the prices on European markets, it could be remunerative in spite of costs of transport, and the increase in cost price which would be caused by a demand and by other circumstances peculiar to commerce.

Before the war slightly more than 3,000 heads of cattle and about 8,000 sheep were annually exported from Benadir. The skins of the exported oxen, which may furnish another element of profit to be taken into account, weighed 405,000 kilogrammes. Probably a considerable number of them emanated from the districts of Abyssinia which lie below Lugli. Such weight corresponds to 58,000 head of live stock, if seven kilogrammes be taken to be the average weight of a dried skin (3).

§ 3. THE LAND SYSTEM.

From the administrative point of view the process of colonization may be considered to have two stages, the one subordinate to the other: first the determination of the lands which are the State's free property, and then the regime of agricultural concession. Obviously the State must determine the available domain, that is to say the lands which can be granted for colonization without injury to the rights of third parties, before it makes agricultural concessions.

(1) 1 Maria Theresa thaler = nearly 2s. at par.

(2) 1 quintal = 220 lbs.

(3) For further details on this subject see *Atti del Secondo Congresso degli Italiani all'Estero*, and especially 8th session, Theme II, *Dell'allevamento del bestiame in Somalia e del suo trasporto in Italia*, Dr. Ferdinando Martoglio, Vol. I, Part III, pages 1715-1753.

A. Determination of the Lands at the State's Free Disposal.

All the provisions aimed at the determination of the lands at the State's free disposal in Somaliland are comprised in the royal decree of 8 June 1911, no. 695 (1) and the governor's decree of 19 January 1912, no. 815 (2) — of which the former recognizes common rights in the lands of the colony and the consequent limitation of those which may be reserved to the available domain, and is completed by the latter which approves internal regulation of this domain.

The royal decree places the land system on solid jurisdictional bases. It contains two affirmations of incontestable practical value — one as to the State's right of sovereignty over the vacant lands of the colony, the other as to the rights of natives and others incident on such lands. These rights, as is easily understood, are entangled and complete each other, so that the better the local governor, to whom authority to distinguish among them is delegated, succeeds in discharging his office with the foresight and caution needed by the delicacy of the situation, the greater will be the attractiveness of the offers of Somalese land. The land should by his care be emancipated from the latent causes of friction between Europeans and natives which impede the agricultural development of many colonies, reducing them to sterile battlefields for contests. This decree also enables the governor to grant to the native population the use of such land as appears necessary to their progress, in addition to the land they enjoy because they have in it a recognized right of possession.

According to the domestic regulations for the determination of the available domain in Italian Somaliland, approved by the Governor's decree of 19 January 1912, no. 815, those lands are excluded from the colony's domain on which Italian citizens or foreigners have valid and recognized rights, and in general all lands to which attach real rights recognized to be effective in the coastal regions, the inhabited centres and their neighbourhood. Lands "actually cultivated and utilized (3) in a permanent manner", by individual natives or by natives collectively, are likewise excluded; as are the zones, even if they be not actually cultivated and utilized, of which the usufruct is about to be granted to Kabyles or fractions of these, to supply the recognized needs of their demographic and economic development. Such lands constitute the zones of native reserves.

The measures taken in consequence of these rules have the following aims:

- a) to ascertain the limits of the available domain as distinguished

(1) 8 June 1911, no. 695, having reference to the definition of the lands at the State's free disposal in Italian Somaliland. *Gazzetta ufficiale del Regno*, 17 June 1911, no. 166: *Bullettino ufficiale della Somalia italiana*, 31 January 1912, no. 1.

(2) 19 January 1912, no. 815. It approves the rules for the determination of the available domain in Italian Somaliland. *Bullettino ufficiale della Somalia italiana*, 31 January 1912, no. 1.

(3) The assignment of lands recognized to be utilized is called *accantonamento delle utilizzazioni* (reservation of utilized lands).

from the lands in which natives have collective rights, or individual rights independent of common property ;

b) to reserve to populations their rights and usufruct within determined limits and within areas acknowledged to be sufficient for their effective development, and to incorporate zones outside the limits of possible utilization in the domain ;

c) to exclude from the resultant available domain, thus constituted, zones of which it is considered right to leave the usufruct to the Kabylies for their future needs, and to make of these zones native reserves ;

d) to cause migrations, or other measures which prove to be necessary, either to prevent the subdivision of agricultural zones, or to avoid excessive agglomerations of groups of population, or to facilitate the constitution of native villages.

The same rules include under four headings provision for the procedure which will enable such concentration, namely *a)* Procedure for the recognition of existing cultivations ; *b)* Procedure for the recognition and the setting on one side or reservation of utilized land ; *c)* Procedure for the constitution of zones reserved to natives ; *d)* Procedure to cause migration.

B. *The Agricultural Concessions.*

We will now speak of the realization of the value of the lands belonging to the domain, that is to say of the agricultural concessions of Italian Somaliland.

The conception which inspired the governor of Somaliland, when he submitted the rules as to land (1) to the approval of the competent bodies, was that of defining the powers which according to clause *d* of article 4 of the law of 5 April 1908 the central government could, in virtue of article 5 of the same law, delegate to him, and of determining their agricultural and industrial aim. The rules establish two categories of concessions which derive their essential characteristics from the authority from which they emanate.

Concessions of the first category are those of more than 2,000 hectares of land, and being dependent on the central government are made by royal decree ; while those of the second category may not be of more than 2,000 hectares and are made by the governor. Both without distinction may be made either to capitalist societies or to private persons of Italian or foreign nationality. The rules rest solidly on principles of incontestable practical value : the applicant for a concession must prove before he receives it that he possesses at least 500 liras for each hectare he has to bring under cultivation ; the conceded land must be granted gradually, in three periods, the area granted being extended progressively ; a concession must be reduced

(1) *Rules for realizing the value of land in Italian Somaliland.* — Royal decree of 8 June 1911, no. 820, establishing the regime of agricultural concessions in Italian Somaliland (*Gazzetta ufficiale del Regno* 16 August 1911, no. 191. *Bullettino ufficiale della Somalia italiana* 31 August 1911, no. 9).

to the limits of the cultivated area whenever, at the termination of one of these periods, the grantee is found not to have fulfilled the obligations imposed by his contract; and finally grantees whose land borders on rivers or canals, constructed or to be constructed, must receive such land so disposed that the greatest possible number will enjoy the use of the water for agricultural and industrial purposes.

These informing principles have been translated into provisions which, while they do not alter them integrally, arrange for their application within clearly fixed limits, and under the direction of the governor's wise discernment helped by a technical commission nominated for such end.

As regards the term for which they are valid (ninety-nine years) and in other respects the contracts of concession have the character proper to temporary leases.

The rent is fixed by the contract and remains unchanged for thirty years, after which an exemption for five years from rent or taxes is granted, and this exemption may be continued for ten years if the concessionary permanently employ at least one family of Italian cultivators for every hundred hectares he holds. The tax will be fixed in accordance with the profits the concession derives from public works of hydraulics, roadmaking etc., which may increase the value of its land. Similarly the criteria are established which the government can apply in order to recover unpaid rent and taxes, and the contract fee is fixed at one lira (1). Machines and implements used on the concession are exempt from customs duties. The State's right of property is affirmed in minerals below the soil, watercourses and canals. The rules for taking possession of granted land are fixed, as is the due payable in the case of reserves of the administration — in discharge of rights which native populations may have in the conceded land, if it has been impossible previously to establish and recognize these rights. The alienation of concessions is forbidden while they have not been granted definitely, that is to say before their value has been fully developed. This prohibition is intended obviously to guard against speculation in land not yet developed by technical ability and a wise investment of capital. On the other hand lots on a concession may be let or granted to *métayers* with the governor's permission. The transmission of concessions by inheritance is organized as in Erythrea. Since it is not only Italians who may receive concessions the provision is opportune which establishes that questions and disputes to which concessions may give rise, whatever the scope of the disputes and whatever the nationality of the contracting societies or individuals, shall be within the competence of the Italian tribunals.

Applications for concessions of the second category are examined in Somaliland, in the case of resident applicants, by the Minister of the Colonies if the applicant persons or societies be domiciled outside the colony. Three tenths of the capital required to be invested in the concession must be paid when the contract is signed into one of the State treasuries. This sum will be gradually returned to the concessionary as he proves that he

(1) lira = $9\frac{2}{5}$ d. at par.

is regularly developing the value of his concession. One tenth of the required capital will however be retained by the administration if, at the end of the first year, all a concessionary's rights in his concession lapse entirely because he has not begun to work it, using appropriate methods.

The rules as to land also make mention of concessions of another type, namely of land on which wild crops are exploited and harvested and pasturage used. These are regulated like the other concessions, except that their term is ten years and that they are renewable for the same period ; but on certain fixed conditions land thus conceded by the administration remains at its disposal for eventual concession for agricultural purposes.

Finally the rules establish (article 37) that the governor may dispose of a lot of 5,000 hectares in the form of experimental concessions of parcels, measuring 25 hectares each but capable of being extended to 100 hectares, to small proprietors having suitable capital individually, and united in a compulsory agricultural union for the execution and maintenance of works of hydraulics, benefaction and roadmaking, useful to all the concessionaries, and for the common purchase of machines, seeds and other like articles, under the superintendence of a central technical management. Although only general criteria have been laid down for this interesting scheme, we are persuaded that it would be an enterprise of modern State colonization which would anticipate coming conditions and be very important to the colony's future. We will return to this question when we treat of the experiments in colonization made with Italian families (vide § 5 of this article).

The rules which we have reviewed conform to an excellent principle of administrative autonomy. The precautions by which the administration has sought to guarantee the financial fitness of applicants for concessions, and the regular development of the value of the land, seem to be much more dependable under these rules than they were in the previous contracts by which concessions have hitherto been conditioned. It will be possible therefore to attract into the sphere of agricultural initiative the most active elements and to exclude from it the least desirable. Certainly these rules cannot be called perfect, but on the whole a far-seeing land policy has inspired them. In any case they must be looked upon as the first notable exemplification of the land system of Somaliland. After some ten years of experience it will be possible to make deductions from them and to compare them with the enactments of other colonial laws better than today. It will then be possible to judge whether they need modification, whether other principles should be applied to them in order to reach a more complete organization of the land, and what such principles should be.

§ 4. EXPERIMENT AND EXPERIENCE IN COLONIZATION.

We will now speak of some concessions and the results obtained from them. We will of course only deal with some typical cases, for we lack the space in which to examine all the experiments and attempts made in Somaliland to provoke and to extend colonization.

First we will speak of the concessions in Goscia, made at the outset, on a method which was little empirical, when the idea of attracting Italian capital to these regions necessarily prevailed, no preliminary investigations having been made. Moreover the capital at first sought was evidently ill fitted to the development of an area of 5,000 hectares. And since local conditions had been little studied concessions were not rationally mapped out, the fact being forgotten that wooded and non-irrigable lands sometimes made more than two thirds of a concession non-productive.

It would have been better to grant 1,000 or at most 1,500 hectares of land in conditions which would have allowed of their whole and equal cultivation, without the enormous differences between one concession and another stated to exist to-day. Not only would it have been easier to find the capital necessary to these cultivable lands, but apportionment of the lands most easily cultivated would have allowed the capital, when once the first trial had been made, to have been used for a harder matter, the development namely of the lands of which the cultivation is laborious and costly.

It was impossible that the first concessions should not suffer by this primary defect in preparatory measures. They suffered not only from lack of capital but even more from a lack of the technical knowledge indispensable to such industrial crops as cotton. Such a history is common to the beginnings of all colonies. Several enterprises thus failed, in spite of all the ardour and the energy with which the pioneer colonists of Somaliland endeavoured to establish themselves.

Two concessions in particular, each of 5,000 hectares, deserve a special examination and may be said to have survived and to have preserved some elements of a serious success. They are the *Società italiana per imprese coloniali* and the *Società romana di colonizzazione in Somalia*. The former was formed by a group of Neapolitan and Milanese capitalists. When an earlier enterprise went into liquidation it added excellent water-works to its assets, and brought the vast plain of Bieja near Jumbo under cultivation. Its works of captation and canalization are perfect and no doubt as to the results they will yield can be entertained. In 1911 the cotton produced was sold in Italy at the following prices which are hardly equalled by the best Egyptian cotton :

	Sakellariadis	Selected Abassi	Mixed	Afifi	Abassi
Liras	214	228	168	192	194

As much as 155 liras a quintal was offered for Upland cotton.

In 1912 thirty hectares were sown afresh ; and the plants of the previous year had regerminated over fifty hectares and promised an abundant harvest, no trace of parasites having been discovered.

Other hundred hectares, brought under cultivation and canalized in 1912, were sown in 1913.

Since the necessary capital is not lacking this concession will certainly be profitable for a long period.

The *Società romana di colonizzazione in Somalia* really began its work only in the spring of 1911. Since it is directed by Count de Frankenstein, who has made all preliminary studies and preparations, it has a future rich in promise in its splendid concession of Margherita, for it disposes of large capital and has not therefore been stinted in the initial expense necessary to the purchase of machines. Making use of the waters which the Juba at times of spate sends to the old canal called Uebi Gofca, which forms an important reservoir, this society has installed centrifugal pumps worked by a steam motor engine of 45 horse-power, capable of lifting 26 cubic metres (1) of water a second. This water is distributed in the canals which intersect an area of 100 hectares, very well brought under cultivation by a plough worked by an exploding Holt-Caterpillar engine of 45 horse-power which answers admirably. It was possible in that year to obtain a yield of 400 quintals of shelled cotton. The cotton harvest — the larger part of the total production — had hitherto been excellent in quality and there had been no discovery of parasitic germs to deplore. In 1913 the society installed machines anew for the purpose of hoisting the river water directly, and added 150 hectares to the cultivated area which thus came to measure from 250 to 300 hectares. It also acquired a shelling machine able to shell 5,000 quintals of cotton'.

In March and April 1916 this society was growing cotton and maize in partnership with the natives over about 250 hectares. It undertakes the first bringing of the land under cultivation, provides water for irrigation, and engages to buy the quota of the crops reserved to its partners at the prices current at the time of the harvest. A considerable number of natives have actively begun works of sowing. This gives rise to a hope that the new system of agricultural organization may meet with a fortunate success and that the difficulties inherent in the labour supply may thus be diminished, while the native labourers will be induced to be more interested in agriculture. The experiment of agriculture of this description goes excellently, and the natives as partners in cultivation are most diligent.

The *Società italiana per imprese coloniali* (Italian Society for Colonial Enterprise) conceived the idea of putting into practice on its concession of Bieja a system of co-partnership different from that followed by the Roman society. It supplies the land, the cotton seed and the water for irrigation, while the natives prepare the soil and undertake all the work of cultivation. Cotton, corn and sesamum are sown in the furrows alternatively. The society will harvest and will own the cotton, while the corn and sesamum will constitute the share of the natives. Cotton, corn and sesamum are thus grown on a number of hectares.

On his concession of Margherita Count de Frankenstein started with the idea that from 200 to 250 hectares must be planted with cotton before capital amounting to 500,000 liras, invested in the soil, can give a profit. In the opinion of competent persons only capital of such importance, employed on installation and machinery, allows — if fit methods be followed —

(1) 1 cubic metre = 1.358 cubic yards.

of progressive and sure development and profits far larger than those possible in Italy. In Goscia large and very fertile tracts are still available above Margherita, extending to Bidi. They include thousands of very fertile hectares, easily irrigable since they lie on plains, not overgrown with bushes, largely above the level reached by the waters of the river when it is in spate and sloping towards the interior.

On one tract in particular, which lies at a short distance from Margherita along the Juba and is surrounded by the Fungalanga Canal, and in which are scattered little native villages, a society could undertake cultivation in partnership with the natives. As in the case of the experiment made at Bidi such society would give cotton to be cultivated, on the security of the average yield which the native themselves would obtain by growing maize. The natives would supply without much difficulty, in view of the density of the population, the labour needed by the society's crops, in return for fixed wage or a share of profits. At times when the river was in spate this tract could easily be inundated: for this purpose the afflux and reflux of the waters would be regulated, and the machines needed to hoist the waters would be used only to constitute a reservoir for cases of necessity. The soil, which is saturated with damp, as black as coal and very fertile, would need only to be reclaimed and sown. A concession of two or three thousand hectares, enjoying the most favourable natural conditions, could be made in this zone.

Turning to the land along the Scheli we find that two concessions have been granted there, one at Havai, and the other at Caitoi where the concessionary, Riccardi, intends to grow chiefly trees. His start was most promising, owing to his admirable enthusiasm which brought about that in a few months he had installed very powerful wind engines, made roads, dug canals, etc. From quite recent data (spring 1916) it appears that in the Riccardi concession at Caitoi new cocoanut and kapok plantations have been made, and that two thirds of the land have been organized by means of permanent works of canalization and the planting of crops now in a flourishing state.

§ 5. SCHEMES FOR COLONIZATION IN SOMALILAND BY ITALIAN FAMILIES.

The criteria which now prevail with respect to the colonization of Somaliland by Italian families may be gathered from the schemes drawn up by the colonial authorities or the official bodies in the mother country, and also from studies bearing on this problem. Naturally these criteria are as yet indeterminate and the schemes therefore are also indefinite in form. But they shed a little light on the question, revealing certain of the most obscure points.

First we must see into what financial engagements the government should enter in order to ensure the success of colonization by Italian families. The calculations are based on a cultivated area of 20 hectares, but the domain to be colonized should extend over 30 hectares, in order that

profits may considerably increase when all available land is brought under cultivation.

I. *Costs of Installation on the Property.*

	Liras—
1. Dwelling-house	10,000
2. Warehouse	7,000
3. Colonization and arrangement of the land at 250 liras a hectares (10 hectares in 1st year, 10 in 2nd)	5,000
4. Stock (live stock, carts, harrow, plough, yokes, various implements)	2,270
Total . . .	24,270
II. <i>Travelling expenses</i>	1,500
III. <i>Costs of maintenance for one year</i>	3,000

FIRST YEAR.

Cost of bringing 10 hectares under cultivation.

1st. Preparation of ground until seedtime (For this supplementary labour, costing 25 liras a hectare, is thought necessary)	250
2nd. Seeds (15 liras a hectare)	150
3rd. Expenses of cultivation from sowing to com- mercial preparation of the products. Wages estimated at 100 liras a hectare	1,000
4th. Irrigation at 30 liras a hectare	300
5th. Maintenance of canals and works of irriga- tion. Supplementary costs estimated at 10 liras a hectare	100
6th. New leap of live stock (30 per cent. on 720 liras)	216
7th. Depreciation of implements (amortization) (20 per cent on 1,550 liras).	310
8th. Maintenance of buildings (2 per cent. on 17,000 liras)	340
Total . . .	2,666

Receipts.

10 hectares having a gross yield of 500 liras a hectare	5,000
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Balance Sheet of Crops.

Receipts	5,000
Expenditure	2,666
	<hr/>
Credit balance . . .	2,334

The advances which the government should make in the first year, excluding the costs properly so called of establishing the domain, are therefore as follows :

a) Travelling expenses	1,500
b) Maintenance for one year . .	3,000
c) Costs of working the property .	2,666
	<hr/>
Total . . .	7,161

SECOND YEAR.

Expenses for 20 hectares under cultivation.

Expenses for 20 hectares under cultivation, calculated according to the data taken for the first year .	4,970
Maintenance for one year	3,000

Receipts.

Gross yield of 20 hectares at 500 liras each	10,000
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Balance sheet of Crops.

Receipts	10,000
Expenses	4,970
	<hr/>
Credit Balance . . .	5,030

If the contract were to be cancelled even at the end of the first year there would therefore be a margin almost sufficient to allow of the entire restitution of the initial deposits.

The head of every family should have a current account book of which the credit side would be opened with an initial deposit of 5,000 liras. From this deposit deductions would be made in cash or in kind on account for a special stores which would furnish means of subsistence and the funds necessary for the cultivation of the land. When the year's

books were balanced the returns of the property should be entered as credited, and costs not met in the same year, such as costs of irrigation, of the depreciation of tools and the maintenance of buildings, as debited. Travelling expenses should be entered with costs.

Receipts.

	Liras
1) Initial deposit.	5,000
2) Return of the crops for 1st. year . .	5,000
3) " " " " " 2nd. " . .	10,000
Total . . .	20,000

Expenditure.

1) Travelling expenses ,	1,500
2) Maintenance for two years.	6,000
3) Advances for crops of 1st. year. . . .	2,666
4) " " " " " 2nd. " . . .	4,979
Total . . .	15,145

Balance-Sheet.

Receipts.	20,000
Expenditure.	15,145
	4,855

Even if the contract be cancelled at the end of the second year there will thus be a margin almost sufficient to allow the entire repayment of the initial deposit.

* * *

We will now see on what system colonists might be allowed occupation. The measures now in force do not contemplate the concession of lands in absolute ownership. The matter is regulated by article 15 of the *Regolamento per la messa in valore delle terre nella Somalia italiana* (Rules for the Development of the Lands of Italian Somaliland) which establishes that concessions may be for a term up to ninety-nine years. In view however of the mentality of the peasants to be affected by the contract it would perhaps be very useful, and would increase the attractiveness of the scheme, to promulgate as soon as possible a royal decree which would enable the governor to sell the domain under conditions fixed by the contract.

The government advanced about 25,000 liras for the first costs of settlement, which sum had become 27,040 liras at the end of the first year by the accumulation of interest. The annual balance sheet of crops gave at the end of the second year, as has been seen, a balance of 5,030 liras, and if 3,000 liras be deducted from this as the costs of subsistence and maintenance a net profit of 2,030 liras remains. Admitting that the initial capital of 27,040 liras at the end of the second year should be amortized in 25 years, the corresponding annual instalment due would be 1,730.56 liras — a sum within the balance quoted.

On this system, and on the basis of the revenue of the holding calculated according to the criteria we have explained, the economic position of the holding would be such as to give the colonist the purchasing power necessary to allow him to become a proprietor. An annual sum of about 300 liras would remain to his credit, and this added to the existing 3,000 liras would bring the family budget up to 3,300 liras.

In order however better to ensure the success of the experiment, and to make it still more attractive, the government might cede to the colonists a third or more of the sum represented by the capital of initial settlement. Thus the sum which the colonist would have to repay in order to become owner of the property could be reduced, for instance, to 18,000 liras or even less, according to the calculations we have shown. With a view to such a measure an offer could be made to the colonist at the end of the experiment, that is to say after three years if the experiment had given good results — of the ownership of the property burdened with an annual due from which he could free it by paying 4 per cent. on 18,000 liras — that is 720 liras. The case which we have reported would still be the basis of this plan.

If it were executed the following cases might present themselves, and they should be considered before an idea of the charges which the government may have to support can be obtained.

a) *1st hypothesis.* — The enterprise entirely fails to reach its end in the first year. The administration is therefore in the position of having advanced about 25,000 liras as costs of installation, and 7,166 liras as travelling expenses, one year's maintenance expenses and the costs of working the property; and yet it does not consider seizing the colonist's initial deposit in order to compensate for such losses. This hypothesis of a catastrophe, which is most improbable, since it is allowable to suppose that the installation would not constitute a complete loss, would entail an expense of 32,166 liras.

b) *2nd hypothesis* — The enterprise fails only after the second or third year. In view of the government's constant superintendence and the annulment clauses in the contract it would be difficult to reach a worse result than that indicated under a).

c) *3rd hypothesis.* — The experiment succeeds so that the holding becomes the property of the colonist or whoever takes his place. This case should be considered in two aspects:

1. The favourable result is due to the special conditions created in the colonist's favour, in that the government may be said to have given him

10,000 liras. This amounts to a failure of the experiment and should lead to an abandonment of the method.

2. The favourable result is due — as regards data and actual fact — to the productive power of the holding, and to a return from the labour of the colonist's family sufficient to allow of their permanent settlement on the holding or to call for another family to replace them. Such is the ideal end of the experiment. If it be attained, even if the specially privileged conditions enjoyed by the first colonists' families be overlooked, the accounts will give an exact idea of the holding's economic strength and of the organization necessary to prosperous colonization in small holdings by a white population. The most favourable hypothesis would presume an expenditure on the experiment by the government of from 10,000 to 12,000 liras, that is to say of the difference between the costs of installation and the sum repaid by the colonist.

*
* *

It will now be well to resume a scheme for colonization in Somaliland by the means of small proprietors, drawn up at the request of the government of Somaliland by Professor Bizzozero, director of the peripatetic chair of agriculture of Parma. This scheme is important because article 37 of the *Regolamento per la messa in valore delle terre nella Somalia italiana* refers to it and has largely incorporated it. We have already dealt with article 37 in speaking of the land system in Somaliland (§ 3. B.)

This attempt at colonization should be begun by a limited number of cultivators' families, some twenty at most, who so soon as they reached the colony would in the presence of the governor form a first agricultural union for the colonization of Italian Somaliland. Only the heads of families would sign the union's constitution, each thus becoming responsible for all his family. As soon as the union were formed each of them would pay the amount of at least one share of 50 liras together with a guaranteeing deposit of 5,000 liras. This latter sum would be entered in a current account book which would be delivered to the depositor on the same day. The agricultural union would be superintended and inspected by the colony's government. This government would for the first two years freely supply the seeds of the herbaceous crops to be grown and the plants for lignous plantations. The colony's technical agricultural office would decide what machines were needed on each holding, and the union would deliver them to the cultivators, entering the sum charged for them on the current account books. Each holding would receive from six to ten head of cattle, and eventually one or two camels and twenty-four sheep, the value of the animals being likewise entered in the current account books. For articles of food each family would have a book and the total sum due for purchases made from the union would be debited to them monthly. The financial resources of

the union would be constituted by the amount of subscribed and paid-up shares, and each family's guaranteeing deposit of 5,000 liras. The colony's government might grant subsidies to the union during the first five years. Five per cent. on sums to the credit of the cultivators in their current accounts would be paid to them by way of encouragement and 3 per cent. charged on the sums with which they were debited. Eventually the rate of interest on the debit and credit accounts would be the same.

All products of the soil would be delivered to the union which would have the necessary warehouses and the other accommodation in which they could be prepared for commercial or industrial use. They would be utilized in their entirety, by the sale of primary and secondary products in their natural state, or by the submission to essication or other processes of products (vegetables, fruit, etc.) which could not travel or be kept for any length of time. The quantities delivered would be entered in the current account books, at prices fixed by the administrative council in agreement with the director, a supplementary quota of any larger price yielded by sale being added when necessary.

Thus the agricultural union would discharge to some extent several roles. It would supply first a commercial agency for the purchase and the distribution to members of live stock, agricultural machines, seeds, plants and other agricultural requisites; secondly a bank for receiving guarantee and savings deposits and making agricultural avances, like the Italian agricultural banks; thirdly a warehouse for everything needed to feed and clothe the cultivators' families; and fourthly an industrial co-operative producers' society for the commercial conversion or preparation of the products of the soil.

This union would last for ten years, and would then be renewed in a form modified as experience would dictate.

The by-laws of the union should be adapted to local conditions and the laws in force in the colony. The scheme has some further provisions as to the purchase and letting of cultivated land after the first five years of cultivation. But this part of the scheme seems to us to have been superseded since article 15 of the rules for developing the lands in Italian Somaliland established that concessions would be made for a term of ninety-nine years.

The financial part of the scheme presupposes an expenditure on installation of half a million liras, and one of 42,000 liras a year on the working which might after five years be reduced to 32,000 liras.

*
* * *

There is no doubt that a prosperous future awaits Italian Somaliland we have seen what elements of wealth the colony contains, what new factors of production and of wealth might be cultivated or called forth

within it, and all the economic and administrative measures taken to develop these treasures.

But that which we said with reference to Erythrea as to the importance of the human element applies also to Somaliland. The politics of the native population, misunderstood and neglected in the early period of the Italian occupation of Erythrea, intimately affect the relations between the mother country and the nations on which her civilizing role is exercised and are largely responsible for the result and success of the economic and administrative measures proposed for the development of colonial enterprises.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

BELGIUM.

AGRICULTURAL TRAINING FOR PARTIALLY DISABLED SOLDIERS. — Communicated by M. H. de Lappaient to the *Académie d'agriculture en France*, at the session of 13 December 1916.

In organizing technical training for the seriously wounded the Belgian government has acted on the principle that an injured man should, whenever possible, not run the risk of becoming a dead weight on the resources of his country, but should still be an appraisable asset, even — in some cases — an element of prosperity. It has therefore been decided to compel the partially disabled to undergo a technical training, suited to the nature of their injuries, the trade they have previously followed, and the tastes and aptitudes which may be discovered in them.

In August 1915 the work of installing the Belgian Military Institute for the Technical Training of the Seriously Wounded on the land of Notre-Dame-de-la-Mère, seven kilometres (1) from Vernon (Eure), was begun.

Huts which can be taken to pieces and are of uniform pattern are distributed in three rows separated by well metalled roads. They cover an area of 17,000 square metres (2) and accommodate more than 1200 men, including the permanent staff of the school. The number accommodated will be raised to 2,000.

The work necessitates a variety of plant and of labour: for the roads which have to be made a quarry has been opened, and its stone is transported by a Decauville way; land containing too much clay has had to be rendered sanitary; a system of electricity, seventy kilometres long, has been established to give light to 1,400 lamps and to feed thirty motor-engines in the various workshops, furnishing altogether 158 horse-power.

The site of the Institute, in the centre of a forest of 350 hectares (3), made it possible to make a bargain with the owner for the purchase of the

(1) 1 kilometre = 1093.633 yards.

(2) 1 square metre = 10.764 square feet.

(3) 1 hectare = 2.47 acres.

underwood, in the interests of heating, as well as most of the forest trees. There has ensued real forestry enterprise with the accompanying industry and machinery, and considerable quantities of stakes have been secured.

Forty-eight different trades are taught, each by a practical workman and demonstrators. In addition to the practical work two hours a day are devoted to courses and technical explanations, given by specialists who, like the overseers, are themselves soldiers, oftenest unfit for service by reason of wounds or their health.

Among the trades taught which are connected with agriculture are cart-er's work, smith's work, the mending of agricultural machines, harness-making, basket-making, the making of packing-cases.

Some hectares of uncultivated and clayey land have been given up to vegetable growing on a large scale, and it has been necessary to dig, drain and clean these. Heavy manuring and numerous agricultural expedients have produced good returns. A vast kitchen-garden has also been formed, its beds bordered by ready-grown fruit-trees.

Outside the central premises of the Institute, in which only some hectares of land admit of cultivation, a farm of some twenty hectares at a short distance has been rented; and there the scientific succession of crops, which plays so large a part in kitchen-gardening, is practised, and some good meadows allow a certain number of carefully selected milch-cows to be kept.

The average number of wounded men undergoing agricultural or horticultural training is seventy. They are given experience, successively and in order, of all forms of indoor and outdoor work. They are especially trained to prepare and pack vegetables, which are produced largely above the needs of the establishment. At the end of August 1916 the growing vegetables were valued at some 38,000 francs (1).

The training given in keeping regular accounts should be noted; for it is of capital importance to each of the trades taught in the Institute, where the whole industrial enterprise aims at the sale of products, manufactured and other.

Every wounded man receives 0.05 franc per working hour from the time of his arrival, by way of encouragement. Each trade is however divided into an apprenticeship and a productive section, and when a man is fit to pass into the latter his wages increase progressively until they reach or even surpass the level of those of uninjured workmen in the same trade. "These productive sections", says the technical director in his report, "have brought in more than 620,000 francs for manufactured articles.. The importance of keeping accounts can be estimated when it is stated that the turnover for the past year was 950,000 francs".

Finally we note that an agricultural orphanage has just been established, in which orphans of the war will enjoy conditions analogous to those of the partially disabled men, receiving a practical and technical agricultural training.

(1) 1 franc = $9\frac{3}{5}$ d. at par.

FRANCE.

THE DEPARTMENT FOR CIVIL AND MILITARY VEGETABLE GARDENS.

This department was recently set up within the Ministry of Agriculture, united to the Ministry of War, and was placed under the direction of R. Maxime Ducroq, president of the enterprise for workmen's gardens at Lille. Its chief object is to provoke and encourage the formation of vast vegetable gardens on the abandoned lands :

1) By means of the depots of army corps and their sections, the sentry-posts of territorials guarding roads and communications, and the hospitals and other military establishments, in which men are retained by their duties and whence they cannot be sent away on leave or for agricultural employment, but where none the less they dispose daily of some hours of leisure ;

2) By means of the civil population of large towns and the neighbourhoods of these.

In 1916, 5,622 military vegetable gardens, having an approximate total area of 2,000 hectares (1) and able to yield about 13 million francs (2) a year were formed by these means.

In order largely to develop this first success, a staff of seventy mobilized men has been instructed at the Ministry of Agriculture and has been commissioned to go through all France, encouraging by lectures, advice and other measures the gardening by depots ; and it is hoped that the existing number of gardens will thus be multiplied by five or even ten in 1917.

Besides vegetable gardens it was recommended that military piggeries should be instituted, in order to utilize greasy water and other waste food. Almost all the depots now keep pigs in this way, and some of them constantly have in their sties about a hundred pigs, the meat of which does not cost them more than 1.25 francs a kilogramme (3).

The civil vegetable-gardens have also acquired a considerable importance. Nine recently formed committees share the task of cultivating the lands attached to the fortifications of Paris in which 3,500 gardens have been established. But the number of applications is much above this figure, and the project was conceived of causing some of the abandoned lands in the neighbourhood of the city to be cultivated by the population of Paris. A meeting of the mayors of the communes of the department of Seine was therefore held at the Ministry of Agriculture on 22 February 1917 and was followed by the formation of several local organizing committees. Already analogous committees have been formed in a certain number of these communes to distribute their uncultivated lands among their in-

(1) 1 hectare = 2.47 acres.

(2) 1 franc = 9 $\frac{3}{8}$ d at par.

(3) 1 kilogramme = 2 $\frac{1}{8}$ lbs.

habitants. One of them has distributed 300 gardens, of 300 square metres (1) each, to as many necessitous families.

The movement is spreading to the large provincial towns. Some of them have resumed on a far larger scale the culture which they undertook in 1916 at the expense of the municipality, and they have without exception obtained the best results.

Further by the despatches of 30 December 1916 and 19 January 1917 the Minister of War decreed that a certain number of mobilized men should in each district be commissioned for three months in the year to provoke and encourage the formation and development of military vegetable gardens.

These mobilized men went through a course at the Ministry of Agriculture which ended on 4 February 1917, and then departed to their districts where most of them at once began work.

Since the despatches mentioned were variously interpreted, in some districts the minister specified their intention as follows :

1) Each of the men concerned, except such as have been noted as unsuitable by the Ministry of Agriculture and therefore replaced, should receive as soon as he reaches his district, from the general commanding it, an order allowing him to go and come freely within its limits. The three months for which he is commissioned start on the day on which this order is remitted to him.

2) From the date on which this order is remitted to him the lecturer is under the orders only of the general or generals to whose subdivisions he has been assigned, is in direct correspondence with them, and addresses his reports to them directly.

3) For the time for which he is commissioned the lecturer must not be expected to render other service.

4) In every place lectures must be delivered to the chiefs of united units and not to each unit separately, and must precede the visits to the various military formations.

5) With a view to these visits a lecturer is supplied without delay with a complete list of the military units, detachments and establishments within the district assigned to him.

In virtue of a decision of the Minister of War on 18 February 1917 the head of the Department of Civil and Military Vegetable Gardens at the Ministry of Agriculture has been entrusted with the local control of the execution of instructions applicable to military vegetable gardens, the verification of results obtained, and the superintendence of the military lecturers commissioned for the relevant work of propaganda.

(1) 1 square metre = 10.764 square feet.

NEW ZEALAND.

SETTLEMENT OF DISCHARGED SOLDIERS ON THE LAND. — *The Journal of the Board of Agriculture*. London, October 1916.

In New Zealand the problem of helping the discharged soldier over the period of transition from military to civil life has been attacked with commendable promptness and thoroughness. At the outset, owing to the novelty of the work and the necessity of improvising the entire machinery, many difficulties had to be faced. The Discharged Soldiers' Information Department, the department of State specially formed to deal with the matter, has however surmounted most of these difficulties and the work is now organized on a satisfactory basis.

According to the first report of the department, which was issued in May, its procedure is, briefly, as follows. The names, addresses and other general particulars as to returning soldiers are collected before the transports reach the landing ports and are registered on cards. The cards are then sorted according to the various districts and a confidential schedule is sent to a local committee. When the soldier is eventually discharged from military service he is interviewed by an officer of the department who reports any particulars which are likely to be of use in finding him employment. With the assistance of the local committee a determined effort is then made to secure employment for those who require it.

The employment of soldiers on the land naturally forms an important part of the work of the department. To meet the case of soldiers who have had no experience in farming, arrangements have been made with the Department of Agriculture to undertake the training of a limited number of men on the various State farms in general farming, dairy farming, fruit farming, poultry and bee keeping, etc. It was thought that partially disabled men in receipt of pensions might reasonably be expected to desire to take up small sections under the land settlement scheme, for the purpose of poultry raising and other light branches of farm work, and that in these cases a course of practical instruction would often save loss of time and money and consequent discouragement. Up to the present time the opportunities afforded have not been taken advantage of, the men — almost without exception — desiring employment of an immediately remunerative character.

State assistance to New Zealand soldiers wishing to settle on the land is however by no means confined to courses of instruction. By an Act passed in October 1915 and entitled the Discharged Soldiers' Settlement Act, 1915, a discharged soldier is given a number of advantages. Under this Act land may be taken up in two ways. Crown or settlement land may be set apart for selection *only* by discharged soldiers, or it may be disposed of to them under special conditions. In either case the Department of Lands is empowered to remit — wholly or in part and for such periods as it thinks fit — any

rent payable by a discharged soldier, or may postpone the date for the payment of the rent. When held under special conditions the soldier may receive financial assistance to enable him to bring his farm into such a state that he can make a living from it.

Land may be disposed of to discharged soldiers either by way of sale or by lease. When sold the price is fixed by the Land Board. If disposed of on terms of deferred payment the purchaser has to pay a deposit of 5 per cent. of the purchase money, the balance being paid in equal annual instalments with interest at 5 per cent. When let the term may be up to sixty-six years with a perpetual right of renewal for further successive terms. The rent will be determined by the board and is not in any case to be more than $4\frac{1}{2}$ per cent. of the capital value of the land. The lessee may at any time during the continuance of the lease acquire the fee simple of the land.

Under section 6 the Minister of Lands may assist an applicant in the clearing, fencing and general improvement of the land, the erection of buildings, and the purchase of implements, stock, seed, trees and any other things which may be deemed necessary for the successful occupation of the land. The rate of interest is to be fixed by the minister, but in cases of hardship he has power to dispense wholly or in part with the payment of interest. The total of the advances made to one person is not to exceed £500. No land let or sold to a discharged soldier under the Act can be transferred until the expiry of ten years from the date of the sale or the beginning of the lease.

According to the first report on the working of the Act 500,000 acres of land have been provisionally set apart for discharged soldiers. Of this area 67,855 acres have formally been proclaimed under the Act. It has been decided to cut up some blocks of land into suitable sections and, before finally settling soldiers on them, to effect such improvements as will enable selectors to make a living off their sections. As far as possible soldiers will be employed in effecting these improvements. For fruit farming it has been decided to plant areas with fruit trees, particularly apples.

RUSSIA.

THE FORESTS OF FINNISH TOWNS. — *Uppsatser i skogsbruk* ; Helsingfors, September 1916 ; *För landtmannahem* ; Helsingfors, September 1916.

In 1915 the Central Communal Office undertook an enquiry as to forest economy in the towns, sending a detailed form of questions to all the towns of the country. Only Kemi and Mariehamn made no response. The results of this enquiry have been published in a study which forms part of a series showing the special researches of the Finnish Forestry Society, and which is also among the publications of the Central Communal Office.

According to the information supplied by the financial commissions

of the towns, the forests of the different towns had in 1915 the following areas:

Kajana	9521.01 hectares (1)
Torneå	5430.29
Kuopio	3876.42
Uleåborg	3485.57
Gamlakarleby	3149.48
Lovisa	2670.82
Raumo	2502.57
Heinola	2418.68
Kristinestad	2303.00
Ekenäs	1847.38
Nykarleby	1638.60
Helsingfors	1536.00
Joensuu	1513.70
Viborg	1507.98
Nyslott	1450.00
Hangö	1189.04
Vasa	1183.59
Brahestad	1044.50
Jakobstad	980.48
Kexholm	865.45
Tammerfors	845.46
Nystad	833.92
Tavastehus	808.75
Idensalmi	736.38
Borgå	719.33
Kaskö	682.21
Lahtis	678.77
Jyväskylä	653.26
Björneborg	642.82
St. Michel	598.35
Fredrikshamn	586.00
Abo	575.22
Willmanstrand	574.17
Sordavala	367.40
Kotka	353.60
Nådendal	170.46

The total area of the communal forests is thus about 60,000 hectares.

The forest law of 1886 compelled the towns to draw up rules of forest economy for the forests on their donation lands (2) and to derive profit from

(1) 1 hectare = 2.47 acres.

(2) Landed property granted to the towns by the State.

them in accordance with these rules. If the area of the woodland be one hundred hectares or more the Forest Administration must advise concerning the projected rules before the municipal council accepts them. Some towns however have still no rules of forest economy.

The following notes shows the importance of the Finnish communal forests to the economy of urban communes.

The towns of Kjana, Torneå, Kuopio, Gamlakarleby, Kristinestad, Ekenäs, Lovisa, Heinola, Nykarleby, Hangö, Kexholm, St. Michel and Nådendal can take from their own forests only all the wood they need for building but they may not sell wood. The towns of Raumo, Brahestad, Jakobstad and Idensalmi take from their own forests all the carpentering wood they need but do not sell any wood. The towns of Uleåborg, Nyslott, Nystad, Tavastehus, Borgå, Kaskö, Jyväskylä and Willmanstrand have sold building wood but have on the other hand made several purchases of wood to meet their own needs. The towns of Joensuu, Vasa, Lahtis, Björneborg and Fredrikshamn have not been able to sell any wood but have been obliged, on the contrary, to buy it. Finally four towns — Kotka, Abo, Sordavala and Mariehamn, have derived no economic profit from their forests.

If we classify the towns according to the net income they obtain from their forests they should be placed in the following order :

The first is the town of Jyväskylä which in the quinquennial period 1910-1914 derived from its forests an average net income of 34.73 francs (1) a hectare. The second is the town of Kuopio, if we include in the net income the value of the wood with which the town has met its own needs. The year 1914 then yielded a net income of 30.63 francs a hectare, sales alone giving an average net income in this year of 14.63 francs a hectare. Gamlakarleby should probably be placed third, and Borgå, with its average of 23.42 francs, fourth. There follow Kristinestad — 22.18 francs; St. Michel — 19.11 francs; Lovisa 17.81 francs (2); Kaskö 15.32 francs; Nådendal — 13.74 francs; Nyslott — 8.79 francs; Kexholm — 6.14 francs (2); Ekenäs — 5.64 francs; Uleåborg — 5.49 francs (2); Hangö — 3.04 francs; Vasa — 2.44 francs; Raumo — 2.26 francs (3); Lahtis — 2.17 francs (3); Tavastehus — 2.21 francs; Torneå — 2.09 francs; Kajana — 1.99 francs (2); Joensuu 1.74 francs (3); Nykarleby 1.59 francs; Viborg — 1.22 francs and Björneborg — 1.09 francs. The town of Helsingfors suffered a loss of 3 centimes a hectare and that of Fredrikshamn one of 53 centimes a hectare.

(1) 1 franc = $9 \frac{3}{5}$ d. at par.

(2) Income from sales.

(3) In 1914.

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THE POSITION AND THE ACTIVITY OF THE GRAIN ELEVATORS OF THE GOVERNMENT AND THE RAILWAY COMPANIES.

SOURCES:

1) А. Дорошенко: "Элеваторное дѣло въ Россіи въ 1915 году" (А. Doroschenko: "The Work of the Elevators in Russia in 1915") in Вѣстникъ Финансовъ, Промышленности и Торговли (Messenger of Finances, Industry and Commerce) Nos. 31, 32 — 31 July, 13 August and 7/20 August 1916.

2) Торгово-Промышленная Газета (Gazette of Commerce and Industry) Nos. 201, 203 — 17 27 and 17 30 August 1916.

If the two great agrarian reforms, that of 1861 and that of 1905, had effect, apart from their social and political influences, on factors which bore on agricultural production, the establishment of grain elevators was destined to be among the most important influences which enhanced the commercial value and the profitableness of the harvest yields when once they had been obtained. Production and markets had to be brought nearer together, the middlemen eliminated if possible, and grain of better quality and in a purer state more evenly brought into trade. These ideals were conceived in Russia as early as the fortieth year of last century (1), but it was only in its eightieth year, after the advent of overseas competition, that the idea of covering the Russian State with a system of elevators really gained ground.

Railway companies and private persons then undertook the erection of grain elevators. The first of them date from 1891 and were four in number, situated in Rjashsk (Government of Rjasan) and Koslov (Government of Tambov), the warehousing capacity in both these places being of 300,000 puds (2), and in Dankov and Lebedjan (Government of Tambov), in both of which the warehousing capacity was of 200,000 puds. In 1897 seven elevators were at work and in 1902 twenty-seven. Before March 1897, the date at which the erection of elevators by the means of the State Bank began, sixty-one elevators of the railway companies and of private individuals existed and their total warehousing capacity was of 23,524,000 puds. In addition there was an elevator of the zemstvo administration of Jeletz (Government of Orel) which could store 672,000 puds of grain.

The largest of these elevators, eight in number, were erected in the harbours, namely:

(1) See "Loans granted by the State Bank on Security of Grain and the Establishment of Grain Elevators in Russia," *Monthly Bulletin of Economic and Social Intelligence*, March 1914, page 85.

(2) 1 pud = 40 lbs.

In Petrograd . . . 2	elevators having a storage capacity of	3,200,000	puds
" Revel . . . 1	" " " "	250,000	"
" Vindava . . . 1	" " " "	2,362,000	"
" Riga . . . 1	" " " "	750,000	"
" Novorossiysk 1	" " " "	3,000,000	"
" Nikolaev . . . 1	" " " "	1,750,000	"
" Odessa . . . 1	" " " "	1,000,000	"
Total 8		12,312,000	"

The storage capacity of the fifty-four elevators which were situated in the interior was of 11,884,000 puds. Individual elevators among these differ very much as to the amount of grain they can receive: it varies from 150,000 or 200,000 puds to 1,000,000 puds — the estimate being for rye — in Moscow.

Judged by the number of times their contents change hands during a trading season the biggest elevators attain the best results: thus in Moscow this was effected 1.74 times, in Koslov (the nearest elevators being included in the calculation) 1.81 times. Two other elevators in fertile districts which chiefly serve purposes of loading also work very well. All the others, that is the smaller elevators, have difficulty in obtaining a like success, as appears in their financial results. Only the elevators in Moscow and Koslov have attained to a profit. All others on the Rjasan-Ural line brought a loss to their companies.

Year	Receipt	Expenditure	Profit	Loss
1912	225,041 roubles (1)	199,215 roubles	25,826 roubles	— roubles
1913	163,157 "	204,077 "	— "	40,920 "
1914	218,483 "	247,042 "	— "	28,559 "

That the railway companies met with so little success in their erection of elevators is partly due to the fact that these for the most part were built on sites chosen with little regard to their activities, and were connected neither with the banks or the exchanges, and that each of them worked for itself alone, in isolation, the companies following only their own special and individual aims without seeking to influence the total trade in grain. The employment of the elevators by the population was therefore in no sense extensive. In 1897, 11,107,000 puds of grain were brought to the elevators of the Rjasan-Ural line, which had a storage capacity of 6,350,000 puds; ten years later, in 1907, 10,452,000 puds were brought to

(1) 1 rouble = about 25 1½ d at par.

them. Thus not only was there no improvement: there was retrogression. Even the amount of 1907 has not been reached of late years.

Year	Grain brought to the Elevators
1912	5,807,800 puds
1913	6,440,300 "
1914	8,446,500 "

These figures shows indeed some progress, but 11,107,000 puds, the amount of 1897, has not since been equalled.

To make the elevators more effective for purposes of trade, and to heighten their activities as regarded both quantity and quality of grain, the government decided to establish its own system of elevators by means of the State Bank. Hence arose:

in 1912	3	elevators	having a storage capacity of.	. . .	2,500,000	puds
" 1913	6	"	"	"	. . .	5,700,000 "
" 1914	9	"	"	"	. . .	5,050,000 "
" 1915	12	"	"	"	. . .	7,500,000 "

In addition in these same years the State Bank acquired three elevators having a storage capacity of 850,000 puds from the Rjasan-Ural Railway Company, and in the beginning of 1916 one elevator having a storage capacity of 1,000,000 puds (Moscow). In the beginning of April 1916 the State Bank erected an elevator able to receive 600,000 puds. Thus altogether there arose thirty-five elevators having a total storage capacity of 23,200,000 puds. In addition thirty-four were being built and were more or less completed. It was decided on 17 June 1916 to erect for the grain districts of the north east and the south west and for the black earth district seventy-seven elevators and granaries able to receive 62,750,000 puds. Through the medium of the State Bank it has also been planned to cover Siberia with a system of elevators, placing in Novo-Nikolajevik (Government of Tomsk,) where the trade in grain is very great, an elevator to hold 2,000,000 puds, and at the station of Kulomsino, at the junction of the Omsk-Jekaterinburg and Tcheljabinisk - Irkutsk railways, one to hold 1,500,000 puds and more.

The existing granaries in Siberia numbered seventy-seven in the middle of July 1915 — they are said since to have increased — , had a storage capacity of 6,704,000 puds, and were subject to the Colonization Administration.

The activities of the elevators of the State Bank cannot be measured by their financial results, as can those of a private company, for they are proportionate not to profits but to the efforts made to organize the home trade in grain on a regular plan and to direct it to right paths. Financial points of view should be disregarded especially at the present time, in which all elevators have been placed under military direction. Nevertheless in

1915 several elevators attained to very favourable balance-sheets, as appears from the following figures.

Elevators	Storage capacity	Profits (Commission not deducted)	Zemstvo Commission	Net Profits
Gryasi (Gov. of Tambov) .	1,700,000 Puds	71,853 Roubles	30,559 Roubles	41,294 Roubles
Tolkaj (» » Voronesh). .	300,000 »	7,868 »	6,561 »	1,307 »
Liski (» » »).	500,000 »	— »	— »	3,051
Neprik (» » Samara) .	300,000 »	4,186 »	2,431 »	1,755 »
Millerovo (District of the Danube).	600,000 »	— »	— »	11,049 »
Bogatoe (Gov. of Samara) .	300,000 »	13,059 »	2,433 »	10,626 »
Sorotshinskaja (Gov. of Sa- mara)	700,000 »	18,991 »	4,862 »	14,129 »

The elevators are developing a very valuable activity in the service of the military authorities. In the region of Tambov, for example, where the State Bank possesses four elevators, 17 per cent. of all bought grain passed through these from 1 January until 1 July 1915, and 28 per cent. from 1 July 1915 to 1 January 1916. In the south-eastern region 38 per cent. of all bought grain was brought to the elevators from 1 July 1915 to 1 June 1916 and 45 per cent. of oats and barley.

Grain when received in the elevators is very carefully dried, cleaned several times over, and carefully sorted. Drying machines have been installed for twenty-four elevators. The building of the elevator in Nabreshnije Tshelni, now nearly completed, will enable the total number of drying machines to deal with 3,000 puds an hour.

As regards the number of times the contents of the elevators change hands in a season this is effected four or even five times in the case of the large erections near railway junctions, and from one and a half times to twice in that of the small local elevators. In order to co-ordinate the activities of elevators and more and more itself to control them, the State Bank will erect them in future only on a large scale. The smaller and local granaries in the rural districts will continue to be decentralized and will be conducted by the zemstvo administrations and the co-operative societies.

Thus the countryman, by the medium of his co-operative society or the zemstvo, can convey his grain to the State Bank's elevator which makes the direct connection with the world's markets.

All that has been said makes clear that we have here a means of giving a firm basis to the Russian trade in grain and a promise of a continually improving output of Russian grain on foreign markets.



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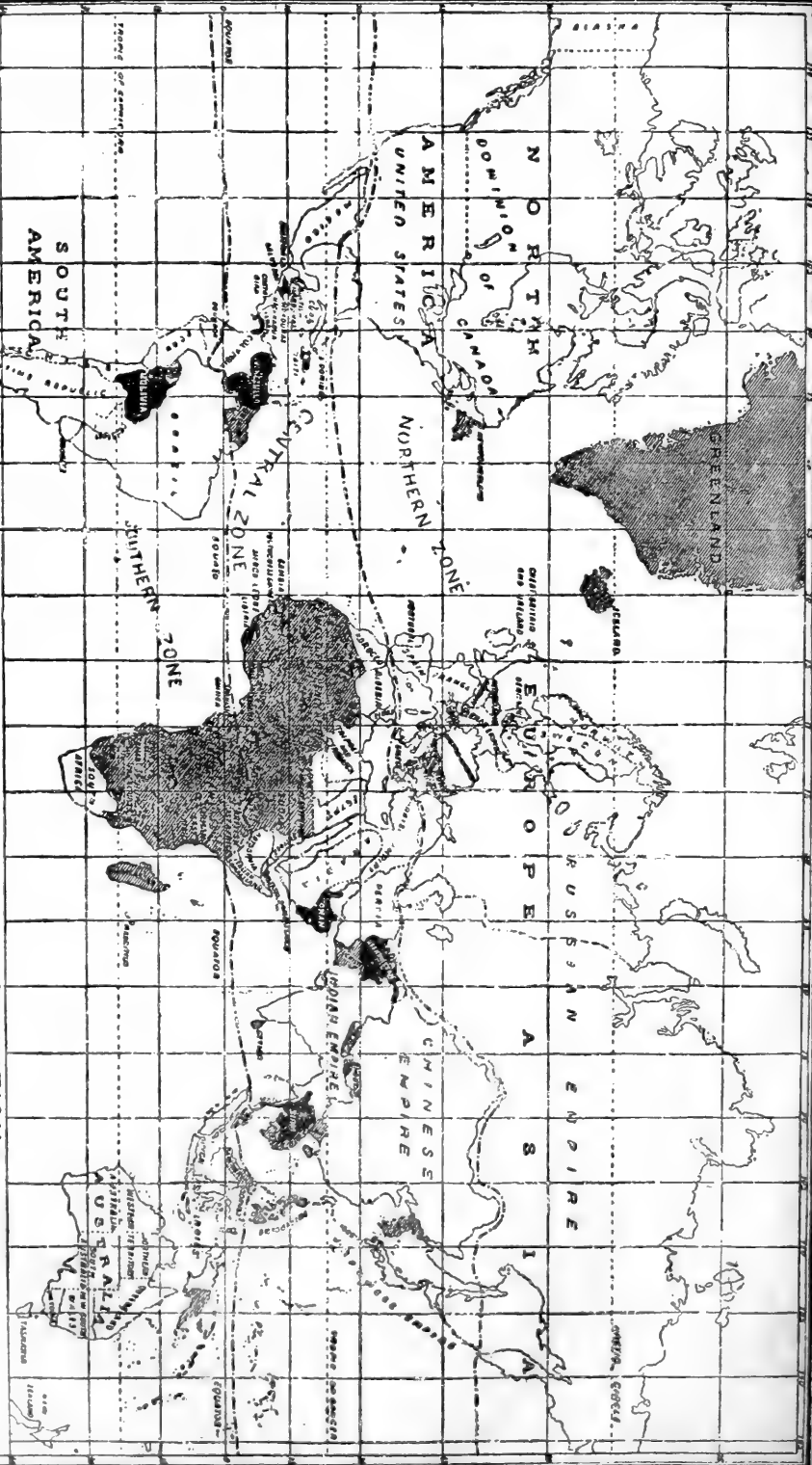
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INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN OF ECONOMIC
AND SOCIAL INTELLIGENCE)

VOLUME LXXVI.
8TH. YEAR: NUMBER 4
APRIL, 1917.



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Part I: Co-operation and Association

BRITISH INDIA.

PROGRESS OF AGRICULTURAL CO-OPERATION IN 1914-1915.

SOURCE:

THE MADRAS BULLETIN OF CO-OPERATION, Vol. VII, No. 2, Madras, December 1915.

§ I. BENGAL.

The general progress of co-operative societies in Bengal may be gathered from the following statement:

Class of Societies	No. of Societies		No. of Members		Working Capital	
	1913-1914	1914-1915	1913-1914	1914-1915	1913-1914	1914-1915
					Rs. (1)	Rs.
Central Societies . .	40	46	4,729	5,061	32,53,550	40,93,136
Agricultural societies	1,543	1,862	71,282	85,717	44,11,493	52,95,099
Non-agricultural societies	78	84	14,317	16,340	12,74,222	16,13,382
Total . . .	1,661	1,992	90,328	107,118	89,38,265	110,91,617

(1) 1 rupee = rs. 4d.

Central Societies. — At the end of the year 1914-1915 there were thirty-eight central banks and eight supervising unions in Bengal. The share capital of the central banks had increased from Rs. 383,555 to Rs. 4,89,548 and their reserve fund from Rs. 35,658 to Rs. 75,072. The combined

share capital plus the reserve fund formed 13 per cent. Of the total liabilities. The banks had taken up the supervision and control of the affiliated societies, granting loans to societies at rates ranging from $9\frac{3}{8}$ to $10\frac{15}{16}$ per cent.

Agricultural Societies. — 1,582 out of 1,862 agricultural societies were affiliated to central banks at the end of 1914-1915. The share capital of the societies had decreased from Rs. 57,564 to Rs. 50,482, but their number, membership and capital had all risen by 20 per cent. The average membership of a society was 46.03 as in the previous year and the average capital Rs. 2,843.76. The average capital per member was Rs. 61.77. Grain banks and stores were working less successfully than previously. The Decca Co-operative Dairy was working satisfactorily and had realized a net profit on the supply of milk of Rs. 414-9-9 in the year. A society had been started in Mymensingh for supplying bonemeal and potato seed through the agency of societies in that locality. Another supply society had been organized at Khelar to deal in ghee, mustard oil, dhutis and chadars.

Audit and Inspection. — Auditing and inspecting are done by the Registrar and his staff. The staff working under the control of central banks and local organizers but paid by the government numbered twenty-four at the end of 1914-1915. The central banks maintained a staff for the supervision of societies affiliated to them.

§ 2. BURMA.

The following table shows the general progress of Burmese co-operative societies in 1913-1914 and 1914-1915.

Class of Societies	No. of Societies		No. of Members		Working Capital	
	1913-1914	1914-1915	1913-1914	1914-1915	1913-1914	1914-1915
					Rs.	Rs.
Central societies . .	96	117	2,748	3,162	26,57,113	34,34,133
Agricultural societies	1,214	1,329	29,889	32,375	32,65,893	41,62,560
Non-agricultural societies	49	43	3,414	3,574	6,14,107	9,03,119
Total . . .	1,359	1,489	36,051	39,111	65,37,113	81,99,812

Central Societies. — There were in Burma at the end of 1914-1915 one provincial bank — the Upper Burma Central Bank — three district central banks and 112 guaranteeing unions. Affiliated societies had a majority of shares and a yet more pronounced majority of votes in the provincial bank. This bank paid $6\frac{3}{4}$ per cent. interest on deposits received

and lent at 9 per cent. to societies, which in turn lent to their members at 15 per cent., thus leaving a broad margin. The district central banks were dependent to a large extent on the provincial bank, which supported them with cash credit from time to time. Unions had increased from ninety-two to 112, partly because six large unions had split into two, three or even four. The unions comprised 1,117 out of a total of 1,252 societies.

Agricultural Societies. — Of the 1,252 societies 606 were of the Luzzatti and 646 of the Raiffeisen type. Their total share capital was 7 lacs (1) and their reserve funds amounted to about 6 $\frac{1}{2}$ lacs. These two items were respectively equivalent to 45 per cent. and 33 per cent. of the societies' total liabilities. The model by-laws were being amended in order that the general meeting might fix the maximum borrowing power of a society and the maximum normal credit it could grant to a member. The average membership of a society was twenty-seven and the average loan per member Rs 136. On three tracts of land co-operation went hand in hand with colonization, namely the Mon Canal Tract, the Mohnyin Valley and the Kadonhaw Tract. The main features of the colonizing scheme were that an area was let to co-operative societies formed of cultivators migrating to it, and not granted or let to individuals, and that such societies were based on co-partnership tenancy and had no capital, but borrowed money from government as an agricultural advance. Cattle insurance societies had increased by four and sale societies decreased by forty-nine.

Audit and Inspection. — There was a proposal to separate administrative from auditing work in order to prevent the overlapping of responsibility, appointing an auditor on a salary of from Rs. 70 to Rs. 120 for every hundred societies and obtaining funds by levying an auditing fee. Supervision was also to be undertaken by union officials and honorary organizers.

§ 3. THE UNITED PROVINCE OF AGRA AND OUDH.

The following table shows the progress of co-operation in 1914-1915 as compared with the previous year:

Class of Society	No. of Societies		No. of Members		Working Capital	
	1913-1914	1914-1915	1913-1914	1914-1915	1913-1914	1914-1915
					Rs.	Rs.
Central societies. . .	55	58	12,959	11,250	59,09,745	62,99,749
Agricultural societies.	2,560	2,716	99,891	101,753	50,71,014	49,88,282
Non-agricultural societies	185	188	5,755	6,270	4,37,428	4,61,113
Total . . .	2,800	2,962	118,605	119,273	114,18,187	117,49,144

(1) 1 lac = Rs. 1,00,000.

Central Societies. — There were at the end of the year 1914-1915 twenty-three district banks, twenty-four central banks and eleven central banking unions. Of the thirty-five central banks and banking unions twenty-six were affiliated to a larger central bank which financed and supervised them while the other nine worked independently. The rapid increase shown in the previous year in the working capital had not been maintained, chiefly owing to the war and the poor autumn harvest. The paid-up capital had increased from Rs. 6,30,631 to Rs. 7,56,147 and the reserve funds from Rs. 3,11,477 to Rs. 3,86,449, which two sums formed 18.1 per cent. of the working capital as compared with 15.9 per cent. in the previous year. The share capital and reserve funds were together equivalent to 26.8 per cent. of the amount of deposits and loans received by the banks. Reserve funds were being invested outside the banks. The total profit of the banks amounted to Rs. 1,51,517.

Agricultural Societies. — In spite of the war and the disappointing agricultural conditions the capital contributed by members as share capital, reserve funds, etc. was equivalent in 1914-1915 to 26 per cent., of the total working capital, as against 17.5 per cent. and 19.2 per cent., respectively, in the two previous years. The rate of interest paid by members covered the cost of supervision and auditing and some miscellaneous expenses. It was 15 or 15 $\frac{5}{8}$ per cent. whereas most central societies charged 12 per cent.

Audit, Inspection and Staff. — Auditing was done by government inspectors, specially trained professional auditors, whole-time auditors maintained by the central banks but controlled by the Registrar, honorary workers, and the paid staff of the central banks. All the central banks were frequently inspected by the Registrar and his staff.

§ 4. THE CENTRAL PROVINCES AND BERAR.

The progress of the co-operative movement in the Central Provinces and Berar is seen from the following statement:

Class of Society	No. of Societies		No. of Members		Working Capital	
	1913-1914	1914-1915	1913-1914	1914-1915	1913-1914	1914-1915
					Rs.	Rs.
Central societies. . .	38	46	6,131	7,074	38,37,411	43,22,056
Agricultural societies	2,087	2,158	34,313	37,053	25,76,238	28,21,670
Non-agricultural societies	88	93	1,778	2,023	96,284	1,17,595
Total . . .	2,213	2,297	42,222	46,150	65,09,933	72,61,321

Central Societies. — On 30 June 1915 there were one provincial bank, twenty-nine central banks, fifteen agricultural unions and one Central Provinces Union of Co-operative Banks. The working capital of the provincial bank had increased from Rs. 12, 22, 450 to Rs. 13,44,315 and the deposits from Rs. 5,35,933 to Rs. 9,86,796. The working capital of the central banks had risen from Rs. 25,86,613 to Rs. 28,37,460, of which latter sum the share capital formed 21 per cent., deposits by members 13 per cent., local deposits by non-members 27 per cent., and loans from the provincial bank 37 per cent. The interest charged by the central banks on loans was generally 9 per cent. while they paid 6 per cent. on deposits. The provincial bank lent money to societies at 7 per cent. and paid 5 per cent. interest on deposits. The Central Provinces Union of Co-operative Banks had continued to give valuable help to the Registrar in securing unity of aim and effort. Its total income for the year was Rs. 50,411. Failures of crops led to numerous renewals of loans.

Agricultural Societies. — The number of agricultural credit societies based on unlimited liability rose from 2,083 to 2,154—127 being newly registered in 1914-1915. 2,013 societies had been affiliated to central banks on 30 June 1915. Two cattle-breeding societies were working satisfactorily, one at Nawagaon and one at Khandwa.

Audit and Inspection. — The societies were inspected and their books audited by the Registrar, his assistant, the chief auditor and his staff. Considerable work of this sort was done by the Union.

§ 5. AJMER-MERWARA.

The following statement shows the comparative progress of co-operation in Ajmer-Merwara in 1913-1914 and 1914-1915.

Class of Society	No. of Societies		No. of Members		Working Capital	
	1913-1914	1914-1915	1913-1914	1914-1915	1913-1914	1914-1915
					Rs.	Rs.
Central societies. . .	5	5	774	841	7,50,322	8,15,242
Agricultural societies.	352	355	10,387	11,264	7,35,509	7,03,016
Non-agricultural societies	—	—	—	—	—	—
Total . . .	357	360	11,161	12,105	14,85,831	15,18,258

Central Societies. — There were five central banking unions in 1914-1915 as in 1913-1914. At the end of the former year 344 societies had been affiliated to the banking unions and were financed by them, the rate of interest charged being 10 per cent. The net profit of the banks

was Rs. 21,885 as against Rs. 23,026 in the previous year. The reserve fund amounted to Rs. 14,320 as against Rs. 7,373 in 1913-1914.

Agricultural Societies. — In 1914-1915 only three societies were registered, two in the Ajmer district and one in Berar. The share capital of the agricultural societies rose from Rs. 1,23,039 to Rs. 1,68,809, and government loans decreased from Rs. 31,667 to Rs. 21,067.

The societies generally utilized their reserve funds themselves. Auditing and inspecting were done by the Registrar and his staff.

§ 6. COORG.

No new credit society was registered in 1914-1915. The amount of working capital rose from Rs. 1,06,020 to Rs. 1,15,400 and the reserve fund from Rs. 18,106 to Rs. 23,514. The number of cattle insurance societies increased from nine to ten; 434 heads of cattle were insured; and the reserve fund of the insurance societies rose from Rs. 188 to Rs. 590.

Nine co-operative credit societies resolved in 1914-1915 that the dividend due to shareholders should thenceforth be employed on insuring their cattle. The grain bank worked satisfactorily and its profit for the year was Rs. 594-12-5. The repayment of loans was not encouraging, the loans outstanding at the year's end being 12 per cent of their total amount as against $6\frac{1}{4}$ per cent. in the previous year. The societies charged interest at the rate of $12\frac{1}{2}$ per cent on their loans and paid from 5 to $6\frac{1}{4}$ per cent. on the money they borrowed.

The committee and controllers managed the societies satisfactorily. All accounts were audited by the registrar personally.

ITALY.

COLLECTIVE DAIRIES.

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The collective dairies are among the most noteworthy and happiest manifestations of the co-operative movement. If indeed there is an agricultural industry which can profit by co-operation — both in point of technique and in point of economy — it is the cheesemaking industry ; and this fact explains the rapid and admirable development of collective dairies throughout most of Italy.

In Italy they have an ancient tradition for in their earliest form they date back to the fourteenth and fifteenth centuries. This form was one

of spontaneous co-operation, resulting on the necessity of using milk industrially. The collective organizations appeared in the mountains where society is most divided and combination is necessary to profit. They are first found in Agordino and Friulia ; then gradually they spread over the whole Alpine chain, penetrating into the provinces of Sondrio, Como, Brescia, Novara and Turin ; they extended into the plain, to Treviso, Vicenza, Reggio d'Emilia and Parma ; and finally, little by little, they conquered, as we shall see, almost all the northern regions.

§ 1. THE VARIOUS FORMS OF COLLECTIVE DAIRIES.

Historically collective dairies have three different forms. The first and most rudimentary of these involved the reciprocal lending of milk on a system by which families took turns (1). Some small producers of milk combined and mutually lent each other milk in an order previously established in order that each might treat a larger quantity at one time. Thus the loss was avoided which results on the daily handling of small quantities insufficient to allow of the production of good cheese, or on too long preservation of milk with a view to accumulating a certain quantity of it. The milk was treated successively in the house of every member. The member whose turn it was provided premises, labour, implements, combustibles, rennet, etc., and then deducted a certain quantity of the product, in addition to that derived from his own milk, as compensation for his work ; or, more commonly, he was in the position of having previously supplied his fellow-members with as much milk as he received on the day or days on which his own turn fell, and therefore appropriated the whole product.

It is however easy to see that the draw-backs to this system were not few. Above all it obliged each member to have premises and implements sufficient to treat all the milk produced by the society. Secondly the products could not be uniform but were affected by the greater or less skill of whoever manipulated them. Thirdly milk was collected for the profit of different individuals at different seasons, and the return obtained by individuals therefore varied markedly. These drawbacks suggested a better system which is still extensively followed, especially in the Alpine districts. By this each member to whom the products come in turn supplies the wood, rennet and salt ; but, in distinction to the plan followed under the earlier system, the milk is treated on premises and with implements and utensils held in common, under the direction of an expert in cheesemaking chosen by the society.

However under this system also, although in less measure, each member gains or loses according to whether his turn falls in more or less propitious seasons and the treatment of the milk is consequently more or less

(1) This form still exists to a limited extent in some districts but it is destined to disappear completely.

good. These dairies tend therefore to be transformed and to be organized industrially. The transformation is usually spontaneous for these societies already possess the elements from which a modern co-operative dairy, the third form of collective dairy, can be born. This third form has the following characteristics : milk is treated in common with implements and means owned in common by a single cheesemaker to whom the handling of the products is entrusted ; and the products, instead of being shared in kind, are — since turns have been eliminated — preserved on the society's premises and sold on the society's behalf to members or others. The members share the products of sales proportionately to the milk they have supplied and similarly bear the costs of the enterprise. They have a direct interest in the realization of profits and are therefore bound to watch the conduct of the enterprise.

It should be noted further that a collective dairy sometimes arises from a union of small milk producers to whom association is a technical necessity, and sometimes from a union of medium or large producers for whom it is merely a means of obtaining larger profits. In both cases some societies apply co-operative principles in their integrity, so that there are no members who do not furnish milk, while in others co-operative principles are attenuated so that members who are only capitalists are admitted.

As regards their form, collective dairies in Italy are for the most part still free. If they are legally constituted their form is generally that of limited liability co-operative societies and they have a share-capital subscribed by the producers of milk themselves. They also undertake the sale of products. The installation of premises for the treatment of milk is accomplished, and necessary material obtained, by borrowing from financial societies or capitalists. The members furnish the milk, as to the amount of which they agree, settlement for any balance furnished being made at the end of the year. Profits are distributed in proportion to the amount of milk supplied, after a part has been deducted to form the share-capital and the reserve and to amortize the costs of installation. The society is directed by an administrative council constituted by a group of members whose task it is to superintend the technical and economic progress of the business.

§ 2. DATA AND INFORMATION AS TO COLLECTIVE DAIRIES IN ITALY.

In the first place how many collective dairies are there in Italy? What is the number of their members and how much milk do they treat altogether? We are not in a position to answer these questions exactly for there are no reliable statistics as to these organizations.

According to the data of the *Unione nazionale delle latterie sociali*, there are 1,123 of these dairies, distributed as follows: Venetia 455, Piedmont 358, Lombardy 219, Emilia 73, Liguria 6, Central and Southern Italy and the

islands 12 (1). There is information dating from 1915 as to co-operative cheesemaking in the districts of Italy, and this we will briefly notice.

Beginning with the north we find collective dairies very common in fertile Piedmont. There are more than 200 of them in the district of Aosta. These are very small dairies formed by small farmers of the district in which *fontina* is made. They undertake merely the conversion of the milk, the local dealers undertaking the ripening of the cheese. The latter centralize the entire production, a large part of the product being exported. In the province of Cuneo there are seven dairies, some of them very important. The province of Alexandria has only two of them, but in the district of Novara there are about forty, most of which manufacture gorgonzola.

In Liguria there are also some collective dairies, those of Masone and Campoligure having a certain importance.

In Lombardy, in the region of Pavia and Milan, the few large dairies which exist have been let to individuals, but in Sondrio their number reaches seventy-six. In Valtellina there is a much developed cheesemaking industry, practised by numerous small collective dairies, generally of the primitive family type. Cheesemaking is practised by the dairies in winter from October to April-June, generally ceasing in April or May when the cattle go to the May pastures, to consume the forage and afterwards to pass on to the Alps. While the cattle are on these pastures the farmers themselves treat the milk, combined in small groups of five or six families who lend it to each other. They collectively transform it into cheese, taking shorter or longer turns according to the quantity supplied. In all the dairies of the province butter and cheese made without cream are manufactured almost exclusively. In the spring cheese made partly or wholly with cream is manufactured. Only the dairy of Bormio, one of the most notable in the province, produces cheese of the Ermenthal type.

The province of Como has also a large number of collective dairies. The last statistics show that there are more than thirty of them and that they are spreading rapidly, especially in the district of Lecco.

The province of Cremona includes nine of these dairies. Except one at Casalmaggiore, which is small, they are very important and they are managed by the modern methods followed in large dairies. They include the famous dairy of Soresina, the largest in Italy, to which we will devote a special paragraph.

The co-operative dairies in the province of Brescia number more than fifty; those in the province of Bergamo more than thirty (2). In the lat-

(1) These data are approximate, it being in practice difficult to establish precise statistics for these societies, especially such of them as are virtually constituted but are often at work only for a few months, according to the district in which they are situated, dissolving at the end of this period and subsequently reconstituting themselves after a short interval.

(2) Detailed information as to the collective dairies of Lombardy will be found in the report of the jury for the prize competition opened in 1914 by the *Società agraria di Lombardia* for dairies founded in this region before 1913 and dealing with an average quantity of no more than 15 quintals (1 quintal = 220 lbs.) of milk. Twenty-one societies took part in this competition.

ter province the dairies have united in a federation with the object of selling in common butter produced in excess of local needs, in order to obtain higher prices by making collective offers. In the province of Mantua the societies for the sale of milk have also united in a federation which is attached to the agricultural union of Quistello. They are found extensively.

In Venetia co-operative cheesemaking is commonest in Vicenza (forty-two dairies) and Treviso (twenty-one dairies). Among these dairies one is very important, that at Soligo which has establishments at Soligo, Pieve de Soligo and Colle San Martino. In the province of Udine no count can now be kept of the dairies: every village has its collective cheese-factory — there are more than 300 of them. In the region of Belluna there are as many as 160 of these dairies. The first federation of co-operative dairies was founded in this province and has premises at Agordo. Its object is the sale of butter produced by adherent organizations, and it still exists and is working magnificently.

In Emilia some ten dairies are found in the province of Parma — most of them let to business men; there are twenty co-operative dairies in the province of Reggio (1) and four in that of Bologna.

In southern and central Italy there are very few of these cheesemaking industries (2). In Sardinia there is only the dairy of Bortigalli. Hence it is necessary to intensify the propaganda for the formation of these co-operative societies in the southern provinces and the islands.

Co-operative organizations have also been formed to provide milk for the large urban centres, and are constituted by producers, an exception being the *Cooperative del latte* of Milan which is a mixed association of con-

From the report (*Bollettino dell'Agricoltura*, nos. 31 and 32, Milan, 31 July and 7 August 1914) we learn that most of them were of recent foundation. We note however that a few were older, like those of Morbegno, Ponte and Tirano which have existed for more than thirty years. All are co-operative societies except that at Casto which follows the systems of manufacture by turns, and that at Tirano which follows two systems, that of co-operation and that of manufacture by turns. All but three have merely a constitution *de facto*. The building belongs to the society at Gordona (50,000 liras), at Morbegno (18,000 liras) etc. The quantity of milk contributed varies from one quintal a day (Valmores) to 12 quintals (Ello). This milk is treated by experts who often have a diploma for special courses in cheesemaking. The machines and implements are those ordinarily found and form in many cases a very modest equipment; in some they are hired or let by the members. The machines are worked by hand or electricity. The book-keeping of many dairies is excellent, being simple and complete; but in some cases it is insufficient, the defect being rather personal than one of method.

(1) For the organization of cheesemaking in the province of Reggio Emilia see "L'industria casearia nella provincia di Reggio Emilia. Quadri statistici con note illustrative (*The Cheesemaking Industry in the Province of Reggio Emilia. Statistical Tables with Explanatory Notes*), Prof. Cav. GIUSEPPE FASCETTI. Published by the Chamber of Commerce and Industry of Reggio Emilia. Typ. Bondavilli, 1915.

(2) Recently the *Latteria sociale camerinese* was constituted at Camerino. Its object is to supply the population with a wholesome and pure product, inspected by the Office of Hygiene, and to intensify milk production in order that it may keep pace with the demand for dairy produce.

sumers and producers. We should note the co-operative societies of milk producers of Brescia, Tortona, Rome and Turin, as well as that of Milan which we have just cited. In Genoa there is an agricultural consortium (1) which provides the town with the milk it receives from agricultural members. The service for selling the milk is admirably organized by the consortium. The experiment may be called the largest and best of its kind hitherto made in the country.

Most Italian collective dairies, like those of which we have spoken, are on the system of manufacture by turns, which is still the commonest, but they are gradually being replaced by co-operative dairies having a small production. "The dairy of primitive form, working on the system of turns", says Cerlini in the study we have cited, "should succeed in meeting better the fresh needs which follow on the change from this to the co-operative form, as gradually the agricultural conditions of the districts in which it is situated are transformed by new systems of agriculture and intensified production, and as zootechnical conditions are modified by an improvement in cattle-breeding aimed at increasing the yield of milk. It is not only the conversion of the milk and the distribution of the product which is now desired: a larger quantity of milk is used in the dairy and consequently its conversion results in a larger quantity of dairy products, which therefore have to be sold to outsiders so that the milk realizes a price paid to the members no longer in cheese but in cash".

Dairies of the average type are found more or less everywhere in Upper Italy, from Friulia to the valley of Aosta in Upper Lombardy and Emilia: on an average from three to six thousand quintals of milk are treated in them annually, on well arranged special premises, supplied with modern implements and utensils, in which scientific methods are followed.

In the region of Emilia, which is that in which co-operative dairies of the modern type are most extensively found, and especially in the district of Reggio, dairies treating large quantities of milk are also found. For example in 1913 the dairy of Massenzatico treated 6,993 quintals of milk. In eight years it has been possible to obtain results allowing of production on this scale, although at first only 3,425 quintals were treated. Other dairies of the average type are found in the provinces of Reggio, Modena and Parma. In the provinces of Vicenza, Treviso and Udine, in the district of Novara and in Upper Piedmont organizations of the average type are also found, scattered here and there among innumerable very small dairies.

§ 3. A TYPICAL EXAMPLE OF CO-OPERATIVE CHEESEMAKING.

Such an example is provided by the *Latteria Sociale Cooperativa di Soresina* in the province of Cremona. This society has incontestably one

(1) See in this connection *Monthly Bulletin of Economic and Social Intelligence*, December 1915, page 33, "The Organization of the Agricultural Consortium of Genoa for the Sale of Milk".

of the largest cheesemaking establishments in Europe. Its organization is excellent; its working and the quality of its products, a large part of which it exports, might furnish a model to many countries in which the dairy industry is developed. It was founded in 1900, thanks to the action of a great agriculturist, a true pioneer of agricultural co-operation — the engineer Antonio Landrini who died some years ago.

Having constituted itself in the form of a limited liability co-operative society, it proposed to set up one or more cheese-factories in which to treat by perfected methods the milk derived from the farms of members, and to sell the products in common. It also proposed to buy and sell other merchandise and practise certain agricultural industries. To ensure its existence it included two fundamental obligations in its by-laws: *milk-producing members* must deliver the milk emanating from the land they cultivate, the portion intended for the consumption of their families being deducted, for thirty successive years; *landowning members* or non-producers must oblige their farmers to become milk-supplying members. Particular provisions regulate the purchase of shares.

The dairy began to work on 11 November 1900, when it had 91 members who had subscribed 2,913 shares of 50 liras (1) each and who furnished about 150 quintals of milk a day. They had then paid up only half the value of the shares: the remainder was deducted from the profits realized on the dairy products in the first year.

In 1900 the capital in shares amounted to 71,025 liras and the reserve fund to 665 liras. The building of the society's premises had entailed an expense of 83,324 liras and the implements and utensils cost 87,990 liras.

In November 1901 the capital in shares amounted to 159,600 liras and the reserve fund to 25,247 liras; in 1902 they had increased, respectively, to 191,350 liras, and 72,729 liras, and at the end of only a few years, in November 1908, to 208,100 liras and 210,591 liras. The large sums paid into the reserve allowed the repayment of the capital shares, for which the by-laws provided, to be begun. This repayment could be effected wholly in 1909. The number of members increased equally, passing from 101 in 1900 to 153 in 1908, 171 in 1912 and about 300 in 1916.

While the administration of the dairy obtained these results its technique was also perfected; so that while at first it could treat only 150 quintals a day, it could finally treat on an average 500 quintals emanating from within a radius of 10 kilometres (2). It produced at first 184,382 liras' worth of butter and 407,869 liras' worth of cheese, but in 1915 these respective values were 550,000 liras and 1,570,000 liras. The society

(1) 1 lira = $9\frac{3}{5}$ d at par.

(2) 1 kilometre = 1093.633 yards. The dairy transports the milk from the farms to its premises by means of 50 carts which it owns. During the hot months the milk is chilled at the place of production by apparatus provided by the society. It reaches the dairy having a temperature of from 25 to 26° centigrade.

manufactures daily about four quintals of whey butter and six quintals of butter made from the complete milk and more than 500 cheeses.

The work being so much, it is not surprising that the dairy has a numerous staff, one namely of about two hundred. The number varies with the work as this is influenced by the market. In each season the staff must be proportionate to the needs of manufacture. There are however certain employees who are more stably employed and have even an interest in the profits.

At the head of the dairy there is a manager, and at the head of the factories of various kinds there are experts — Swiss for the Ermenthal, Fribourg and Sbrinz factories; workmen from the Lodi district for the buttermaking; southerners for making the cheeses in demand in the south.

Since the quantity of milk treated has, as has been said, gradually passed from 150 to 500 quintals a day, it is clear that the dairy has developed considerably. It is now supplied with all the most modern cheesemaking machinery.

The society's buildings comprise several large halls. One for washing and sterilizing the cans, which measures about 130 square metres (1) and holds 1,500 cans, is provided with a special mechanism which allows 125 of them to be washed in an hour.

The next in importance is the cheesemaking hall, which contains sixteen boilers having a capacity of 15 hectolitres (2) each. Then there is the buttermaking hall, and there are a large number of spacious rooms in which lactose is prepared, and others used for the preparation of condensed milk and sterilized milk, a recent enterprise.

The attention of visitors is more attracted by the storehouses for the preservation of cheese. There are six of these; three underground, measure altogether 235 metres (3) in length, from 4 to 6 in height and 6 to 11 in width; and three above stairs measure 6 to 11 metres in width and 3.5 to 6 in height. These storehouses contain 30,000 Swiss cheeses and about 130,000 Roman *pecorino* cheeses.

In view of the importance of the process to which the milk is subjected the dairy is obliged to employ considerable motive power. It has six engines: two worked by steam, the combined force of which is about 75 horse-power, and four electric engines having a total force of more than 100 horse-power, as well as four steam boilers of 300 horse-power. The dairy sells and exports most of its products directly. Retail selling is specially limited to cover only the needs of members and the provisioning of neighbouring middlemen (4).

(1) 1 square metre = 1.196 square yards.

(2) 1 hectolitre = 22 gallons.

(3) 1 metre = 1.094 yards.

(4) The dairy of Soresina is a centre which unites all the farmers of the district. It helps them in that it encourages among them various forms of initiative tending to the progress of agriculture. In 1903 it became a branch of the co-operative agricultural consortium of the province of Cremona. It buys on behalf of its members the coal they need for the engines necessary to

These large dairies are not however numerous in Italy. Besides a few others in this same province of Cremona (Piadena, Acquanegra, etc.) and a few in the Milanese and the province of Treviso, the only types found are those of the dairy of average importance and the small co-operative cheese-factory (1).

§ 4. SOCIETIES FOR THE RIPENING AND THE SALE OF CHEESE.

In order that the products of the dairy may conquer the markets they must fulfil certain very definite conditions. As regards cheese, in order that the various kinds may be commercially recognized, form, weight, composition and colour and the content of fat must be preserved unchanged. In order that they may sell well the cheeses must also be well ripened. But the processes necessary to giving them these necessary qualities are not always easily practised in isolated collective dairies or dairy farms; whereas they can be effected profitably by special organizations (federated dairies) which concentrate the products of members, inspect and classify them, distribute them in various groups according to their quality or the needs of the market, undertake the ripening process on suitable premises, and sell them at opportune times, etc.

These ideas were first developed at the National Congress of the Milk Industry at Turin in 1911 (2). Some societies have already attempted something of the kind in Italy for the ripening and the sale of the products of cheesemaking. Thus the *Società Caricatori d'Alpi* of Morbegno (Sondrio), constituted with a capital of 17,000 liras, has formed a collective industry for ripening Bitto cheese. This aims: *a*) at collecting and preserving in special storehouses the cheeses produced by members; *b*) at facilitating their sale; *c*) at promoting the granting of advances in cash, at low rates of interest, by credit institutions to members applying for them,

their threshing and also provides them with the lubricators they use for their agricultural machines. It has founded a co-operative chemical depot which first provides members with all the chemicals they need and secondly sells all manner of remedies to the public at low prices. It has set up essicating ovens for cocoons and grants the use of these to its members in return for a mere repayment of the expenses it thus incurs. It has organized lectures for the instruction of employees in members' byres, and it employs inspectors who watch over the production of the milk, the quality of forage, etc.

(1) In the province of Milan efforts have been made to instal large dairies, especially in the lower district (Casalpusterlengo, Melegnano, etc.) and in the district of Pavia (Robbio, Candia, Lomellina), but no good results have been obtained. Initial errors, especially those of too expensive installations and of the application of mistaken criteria of technique, made important initiative in favour of the dairy industry in the Lombard district abortive. Other efforts have been made in Piedmont, but outside events which cannot be narrated here caused the dairies which were installed to pass into the hands of business-men and individual capitalists.

(2) See in this connection the report presented to the congress by Dr. P. Montanari which is cited among the sources of this article.

the cheese they have deposited being their security ; d) at assisting enterprises which aim at the development of the cheesemaking and zootechnical industry.

The society proposes to hold an annual exhibition of cheese, and to pay attention to the improvement of this article of diet.

In order to improve the manufacture of dairy products it customarily holds competitions, to which prizes attach, for producers and cheesemakers ; holds courses in cheesemaking ; and organizes cheese exhibitions.

The society's storehouses hold at least 2,500 cheeses. The members who wish to take advantage of them must make application in writing and pay a deposit of 5 liras for each group of 50 cheeses, each of which must bear its owner's stamp. The application must indicate whether the owner will himself take charge of his product, make some one else do so, or make the society responsible for it. The society has special tariffs for storage, and has its own staff who include a director of the storehouse and a certain number of cheesemakers.

The *Società Viterbese Ovis*, for the manufacture of Roman *pecorino*, affords another example of bold initiative in the domain of co-operative cheesemaking.

The large growth of recent years in the consumption of Roman *pecorino* in Italian and foreign markets has caused a need to be felt for an improvement in technique and commercial organization, were it only for the purpose of protecting the pure product from the unfailing frauds of speculators.

Thus several societies have been formed in Latium and in the Abruzzi and Sardinia for the exportation of *pecorino*, and they have special establishments for ripening the cheese. The society which has just been named began its operations by salting the cheese made by the individual shepherds. It now aims at collecting and treating the milk of members on its premises in order that a standardized article of good quality may be placed on the markets. As a guarantee to consumers each cheese is stamped by heat with the word " romano ".

The " Ovis " society already has many members. It ripens about 3,000 quintals of *pecorino* which is commercially absolutely uniform and is sold for prices higher than any previously realized by the members.

In the district of Reggio several attempts have also been made to construct large co-operative storehouses for ripening and selling *grana* cheeses, but hitherto no results have thus been obtained.

In the matter of buttermaking the problem, which is to centralize production and trade in special co-operative organizations, is certainly easier, given the greater simplicity of the technique and the rapid sale of the product.

The *Società Cooperativa delle Latterie Agordine* (Belluno) is incontestably the most important example of its kind in Italy. Another society having a promising organization is the *Federazione delle Latterie Sociali Bergamsche*, founded in 1909, especially with the object of selling on behalf of its members the butter produced by the federated dairies and not sold

by them. In 1913-1914 this federation received 6,231 kilogrammes (1) of butter from its fourteen adherent dairies, and sold this butter at Bergamo, Clusone and Trezzo for 19,731.65 liras. This sum, when 1,236.30 liras had been deducted for costs of transport and packing, postage, etc., gave a balance of 18,495.35 liras, that is 2.96 liras a kilogramme. This initiative was excellently received not only by the dairies but also by all the agricultural institutions, the agricultural consortium of Bergamo undertaking the society's book-keeping and treasurership.

§ 5. THE NATIONAL UNION OF COLLECTIVE DAIRIES AND THE PROVINCIAL FEDERATIONS.

With the object of co-ordinating the co-operative movement in Italy, protecting and assisting collective dairies, promoting their diffusion, and organizing whatever can be useful to the cheesemaking industry and co-operation therein, there was formed in 1907 the *Unione Nazionale delle Latterie sociali e cooperative* which has its premises at Rome. It groups 294 societies (2); and by means of pamphlets of propaganda, other publications and its official organ, *Il caseificio moderno*, it seeks to advance among agriculturists co-operative principles and all technical and scientific knowledge which can develop and perfect the scientific technique of cheesemaking.

Among numerous and various forms of activity its organization of or participation in important congresses should be recalled, among them those of Reggio Emilia, Piacenza, Udine and Cremona, in which the most urgent problems of cheesemaking technique and economy were discussed. We note discussions on: "The exemption from income-tax of the collective dairies"; "Legislation relative to co-operative societies and especially dairy societies"; "Associations of milk producers and cheesemaking societies"; "Milk contracts and producers' societies"; "Itinerant instructors in cheesemaking and co-operative cheesemaking"; "The collective sale of the products of cheesemaking", etc.

Recently the society gave attention to two other questions, the export of dairy produce and the milk supply of large urban centres. With regard to the former it took effective action in relation to public authorities in order that a limited right of export on stated terms might be granted in the interest of the cheesemaking industry, and it therefore formed a special office of commercial information and assistance. With regard to the second question it placed itself at the disposal of various administrations, offering to supply them with milk. It began with Rome and obtained that 25,000 litres (3) of milk should be sent there daily from the large

(1) 1 kilogramme = 2.2 lbs.

(2) It is calculated that the federated dairy societies comprise about 20,000 agriculturists and treat more than half a million quintals of milk.

(3) 1 litre = 0.88 quart.

collective dairy of Soresina of which we have already spoken. The communal administrations of Cremona, Milan, Pisa, Reggio Emilia, Taranto, Florence, Venice, Genoa, etc. were similarly approached.

The union is further in the habit of collaborating in the quarterly enquiries, into the conditions of the international market for milk and dairy produce, undertaken by the Swiss Peasants' League in the interest of producers. These enquiries concern the prices current for forage, and the production and the prices of milk, cheese, butter, etc., The union collects the data of this description needed throughout Italy. It employs in consequence more than a hundred correspondents, who are scattered over the various districts and give information as to conditions in each of these, which the union resumes and communicates to those interested and to the press.

Finally, as a result of the union's encouragement and the initiative of the itinerant chairs, provincial federations of collective dairies have been formed and are in course of formation, and they conduct an enterprise of technical assistance and advice and consultation. We should note in this connection the *Federazione delle Latterie sociali agordine* (Belluno), the *Federazione delle Latterie Bergamasche*, the federations of dairies of the district of Reggio, the lower district of Novara and Lomellina and that of Cremona, and the *Federazione delle Latterie* now in course of formation.

It is evident that Italian co-operative cheesemaking is being, little by little, organized and completed under the impulse and direction given by the *Unione Nazionale delle Latterie Sociali*.

RUSSIA.

POPULAR CO-OPERATIVE CREDIT FROM 1914 TO 1916.

Вѣстникъ Финансовъ Промышленности и Торговли (*Messenger of Finances, Industry and Commerce*) No. 44, 30 October/12 November 1916. Petrograd.

Правительственный Вѣстникъ (*Government Messenger*) No. 273, 21 December 1916-3 January 1917. Petrograd.

§ 1. INSTITUTIONS OF POPULAR CREDIT IN GENERAL.

Present circumstances have not stopped the development of small credit in Russia but have merely made it slower. This circumstance may be said to have favoured establishments of which the previous growth had been very rapid. Their comparative numerical decrease has been counterbalanced by a firmer economic position and a more extensive social influence.

According to the *Messenger of Small Credit* the following new establishments were founded between 1914 and 1916 :

Year	Number of Foundations
1914	1,606
1915	956
1916 (1 July)	406

The previous average was 2,000. The new foundations were distributed as follows among the different types of institutions on 1 January and 1 July in each year :

	1914		1915		1916	
	I January	I July	I January	I July	I January	I July
Co-operative credit societies	9,536	10,401	10,687	11,176	11,412	11,649
Deposit and loan funds	3,479	3,728	3,815	3,983	4,042	4,195
Funds of Zemstvos	203	215	232	239	248	266
Federations of co-operative credit societies	11	11	11	28	62	84
Total	13,029	14,355	14,745	15,426	15,764	16,194

The number of the small credit establishments is seen to have passed between 1 July 1914 and 1 July 1916 from 14,355 to 16,194, that is to have increased by 1,739. The increase of the federations of co-operative credit societies from eleven to eighty-four should be especially noticed.

§ 2. THE CO-OPERATIVE CREDIT SOCIETIES AND THE DEPOSIT AND LOAN FUNDS.

a) *Number, members and capital in shares.*

Of the two types of co-operative societies it is those for credit which have most increased, in point of number, of their membership and of their circulating capital. Saving 2.6 per cent. of them which have an urban character they are situated in the country almost exclusively. On the other hand almost half the number (44.6 per cent.) of the deposit and loan funds are in the towns of the south and south-east of Russia.

	1 July 1914	1 January 1915	1 July 1915	1 January 1916
<i>Number of co-operative societies :</i>				
Credit	10,401	10,687	11,176	11,412
Deposit and loan . .	3,728	3,815	3,983	4,042
Total	14,129	14,502	15,159	15,454
<i>Number of members :</i>				
Co-operative credit societies	6,948,000	7,228,000	7,714,000	7,787,000
Savings and loan funds	2,199,000	2,261,000	2,306,000	2,298,000
Total	9,147,000	9,489,000	10,020,000	10,085,000
<i>Circulating capital (in terms of thousands of roubles) :</i>				
Co-operative credit societies	428,173	382,335	468,138	452,909
Deposit and loan funds	344,989	327,712	341,212	330,950
Total	773,162	710,047	809,350	783,859

On 1 July 1916 the institutions for co-operative small credit comprised more than ten million members, allowing an average of six persons

for each household. This is to say that more than a third of the whole Russian population belonged to them.

The membership of each co-operative society increased at the following average rate :

Year	Increase
1912	40
1913	47
1914	46
1915	51

The number of the members of the deposit and loan funds which reached 595 in 1915 has since been slightly reduced. These funds are less popular than the co-operative credit societies. The latter included as their members, in 1912, 47 per cent. of the population within their spheres of activity, a fraction which has now probably come to be more than half, whereas the funds grouped only 24 per cent. of the population within their spheres.

The capital of the co-operative societies was distributed as follows :

	1 July 1914		1 January 1915		1 January 1916	
	in terms of thousands of roubles	%	in terms of thousands of roubles	%	in terms of thousands of roubles	%
<i>Capital :</i>						
belonging to them- selves	96,687	12.5	99,501	14.0	110,078	15.4
belonging to depo- sitors	487,508	63.0	472,862	66.6	535,372	68.6
belonging to the State	148,159	19.2	105,218	15.0	95,509	12.3
belonging to the Zemstvos and others	40,808	5.3	32,464	4.4	42,900	3.7
Total . . .	773,162	100	710,045	100	783,859	100

In a certain number of districts the inflow of deposits was so great that the co-operative societies could not utilize them. Paper and specie have therefore augmented considerably, their value passing from 86,416,000 roubles to 141,416,000 roubles, that is 20 per cent of the amount on the balance-sheets.

b) Purchases and sales effected by small credit establishments.

Owing to present circumstances the co-operative societies are undertaking business usually outside their range of activity or only a very subsidiary part thereof, such as the lending of agricultural machines for the field work of their members, the lending of seed, the purchase and sale of

the agricultural products and the medicinal plants of their members, and the purchase of alimentary products where there are no co-operative consumers' societies or these have insufficient resources. The course of stimulating the activity of consumers' co-operative societies by making loans to them is however preferred. Thus in May 1915 a ruling allowed co-operative credit societies to lend 1,000 roubles — or even more in case of necessity — to co-operative consumers' societies.

In 1915 the following sums, expressed in terms of thousands of roubles, were employed on various purchases :

	1915	
	1 January	1 October
<i>Sums actually paid for purchases :</i>		
by co-operative credit societies	799.4	1,959
» deposit and loan funds.	397	828
Total . . .	1,196.4	2,787
<i>Products of sales :</i>		
by co-operative credit societies.	736	1,886
» deposit and loan funds.	110	647
Total . . .	846	2,533
<i>Merchandise bought :</i>		
by co-operative credit societies.	9,275	15,353
» deposit and loan funds.	2,683	5,480
Total . . .	11,958	20,833

The enterprises organized by the co-operative societies are, besides the corn magazines, co-operative mills in Siberia near the stations of Lebegia, Cocenov, etc. Quite recent foundations are those of tileworks in the government of Kharkov, tanneries, factories for preserving fruit in Dagestan province, metallurgical establishments manufacturing the requisites of domestic industry, experiments in realizing the value of peat, etc.

c) Distribution of co-operative societies according to regions.

The following table shows the number of co-operative credit societies and of savings and loan funds in each region and their financial importance on 1 October 1915 :

Regions	Co-operative credit societies					Deposit and loan funds						
	Number of co-operative societies	Balance sheet	Deposits	Average capital of one co-operative society	Average for one member		Number of funds	Balance sheet	Deposits	Average capital of one co-operative society	Average for one member	
					Capital	Deposits					Capital	Deposits
(in terms of thousands of roubles)												
1. Northern	1,313	38,397	24,005	29.5	41.3	25.8	178	7,378	4,073	40.9	92.2	50.9
2. Industrial	1,575	48,611	29,414	30.4	49.6	30.0	272	8,045	3,722	26.8	61.9	28.6
3. Eastern	1,242	54,213	24,282	45.2	61.6	27.6	141	6,625	2,756	47.3	110.4	45.9
4. Central	2,012	91,039	54,008	45.5	56.9	33.8	197	11,897	6,179	59.5	79.3	41.2
5. Southern	1,683	106,776	50,414	62.8	82.1	38.8	537	48,580	20,330	97.2	124.5	50.8
6. South-west	660	23,286	8,308	35.3	55.4	19.8	429	25,845	9,957	64.6	86.2	24.9
7. Baltic	2	377	319	188.5	341.1	290.0	285	84,746	66,600	282.5	65.1	51.2
8. North-west	357	10,934	7,023	30.4	45.5	29.3	444	21,383	12,416	54.5	82.8	47.7
9. Caucasus	1,018	55,518	31,178	55.5	99.1	55.6	349	30,986	16,008	103.3	154.9	80.0
10. Turkestan	273	5,889	675	21.5	70.0	0.8	333	7,506	351	22.5	107.2	5.0
11. Siberia	1,088	33,935	16,267	30.9	79.1	23.5	46	1,320	533	26.4	63.0	25.3

In Transcaucasia popular credit has also begun to develop. There are there 561 co-operative societies having a total capital of 12.3 million roubles and deposits amounting to 2.2 million roubles. The small credit establishments operate exclusively with capital belonging to the State bank, for the Mussulman population is not sufficiently rich to allow an influx of deposits to the co-operative societies. The usefulness of the latter appears in the educative part they play towards the natives and also in their beneficent influence in raising the price of costly crops, such as cotton.

The same phenomenon is noticed in Turkestan where the co-operative societies operate only with State funds, amounting on an average to 70 roubles a member in the co-operative credit societies and 107 roubles in the deposit and loan funds. In the province of Samarcanda there are 110 co-operative credit societies and nine deposit and loan funds, in Fergansk province 132 co-operatives credit societies and 116 deposit and loan funds. The population is very honest and very exact in making repayments, but owing to the religious prohibition to lend at interest co-operative societies cannot obtain deposits.

§ 3. THE FEDERATIONS OF CO-OPERATIVE SOCIETIES AND THE FUNDS OF THE ZEMSTVOS.

The federations of co-operative societies and the funds of the zemstvos, the two institutions which unite co-operative societies, materially or morally, in more or less important groups, have fared differently during the war. While the funds have grown somewhat more slowly than previously the federations have had a relatively large increase, especially since August 1915. Their foundation, which once was a very complicated matter and dependent on the Council of Ministers, has since that date become easier; and federations may now be formed with the authorization of only the Minister of Finances. Consequently their number has, as we have seen, increased from eleven to eighty-four. In January 1915 the average number of co-operative societies grouped by a federation was 1,322, in July 1916 only 188.

The distribution of federations according to regions is as follows :

Regions	Number of federations
1. South	15
2. Little Russia	10
3. Industrial	9
4. East	9
5. Central	8
6. Siberia	7
7. Ural	6
8. Caucasus	4
9. South-West	3
Total	71

In the other regions the development of federations is for the moment unimportant.

Government foundation subsidies to the new federations amounted in 1915 to 80,000 roubles for the federation of Jekaterinburg, 40,000 roubles for that of Ufim, 30,000 roubles for that of Kheadrin and from 5,000 to 20,000 roubles for each of the other federations.

The increase in the sum in the balance-sheet of the ten federations which existed before the war, between 1 January 1913 and 1 January 1916, shows their development.

Federations	Year of foundation	Balance-sheet on 1 January (in terms of thousands of roubles)			
		1913	1914	1915	1916
Kiev	1907	1,195.2	2,126.0	3,117.7	3,048.8
Coubanj.	1911	286.3	784.2	1,119.4	2,274.5
Tersk	1911	—	378.2	781.7	1,532.9
Jekaterinburg . . .	1907	223.3	384.8	570.4	1,561.8
Jekaterinoslav . . .	1911	79.4	230.6	516.7	745.9
Melitopol	1903	245.5	255.2	422.3	840.3
Nijnij-Novgorod . .	1911	—	190.0	570.2	1,124.1
Berdjansk	1901	143.5	155.9	284.8	281.7
Zlatoust	1911	31.8	83.7	133.2	349.7
Stavropol	1907	68.9	80.3	130.7	348.4
Total . . .		2,273.9	4,667.9	7,747.1	12,108.1

The sum on the balance-sheets of these same federations was 21,510,800 roubles on 1 April 1916 and that on those of fifty-two federations was 42,725,400 roubles on 1 July 1916.

Deposits occupy the first place on the balance-sheet, accounting for 4,521,300 roubles, namely 59 per cent. of the balance-sheet of 1 January 1915, and for 7,407,000 roubles, namely 61 per cent. of the balance-sheet of 1 January 1916, in the case of the ten federations named. The purchase of merchandise by the federations and the sale of articles produced by members of the co-operative societies are sufficiently remarkable, as is seen from the following figures which refer to thousands of roubles :

	1915	1916
Debts of federations to suppliers of merchandise . .	175	385
Sales effected	197	494
Amount of merchandise bought	302	1,026

The mutual relations of the federations begin to develop. Thus seven southern federations have united to form a common selling and buying office and to bring out a paper, "Southern Co-operation". The federation of Pjatigovsk has entered into relations with that of Zaritzin and those of the Caucasus in order to procure wood of good quality. A tendency

is defining itself to form among the federations local units of the same type, like the Popular Bank of Moscow (1).

The number of the funds of the zemstvos, of which the first was founded in 1907, passed between July 1914 and July 1916 from 215 to 266, increasing, that is, by forty-one. The total sum on the balance-sheets of these funds was one hundred million roubles in July 1915, deposits amounting to sixty-five million roubles. The very rapid development of the federations of the co-operative societies and their larger activity has raised the question of their relations with the funds of the zemstvos and the definite organization of the latter. Perhaps they will transform themselves into banks of the zemstvos, enlarging the sphere of their activity which will come to embrace not only small credit but also the more important forms of agricultural, communal and co-operative credit.

§ 4. GOVERNMENT SUBSIDIES TO INSTITUTIONS OF SMALL CREDIT.

The chief sources of the government subsidies to small credit institutions are, in the case of short-term loans, the Bank of the Empire, in that of loans maturing slowly the savings banks (2), especially when the necessary capital has to be obtained for the constitution of small credit establishments. The sums granted by the government have been of recent years as follows :

	1914	264	million roubles
	1915	313	» »
and on 8 July	1916	380.9	» »

of which 320 million roubles or about 80 per cent. emanated from the Bank of the Empire and 60.8 million roubles from the State savings banks. Small credit institutions do not however exhaust all available credit in the Bank of the Empire and the savings banks. The following table shows the relation existing between the credit granted by the Bank of the Empire from 1914 to 1916 and the indebtedness to this bank of the small credit institutions :

		Credit granted	Indebtedness	%
		(millions of roubles)		—
1914	October	240	129	53
	December	256	94	36
1915	January	260	84	32
	July	275	151	54
	December	306	75	25
1916	January	308	69	23
	July	319	68	21

(1) See our issue *Bulletin mensuel des Institutions Économiques et Sociales*, October 1912, « *La Banque Populaire de Moscou et son origine* ».

(2) See *International Review of Agricultural Economics* June 1916, page 24, "Popular Co-operative Credit" (continued).

The savings banks are in the same case. The credit they had granted to small credit institutions amounted on 1 January 1916 to 143.9 million roubles, of which sum only 48.2 million roubles — that is 33.5 per cent. — had been effectively lent to the small credit establishments. The cause of this state of affairs should be sought in the inflow of deposits to the small credit establishments and the growth of their own resources. It is proposed therefore to allow the funds of the State savings banks to be lent not only to co-operative societies, as is provided by the law of 21 June 1910, but also to the zemstvos and to the federations of the co-operative societies, to be used for long-term agricultural and land credit and for the building of granaries.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

AUSTRIA.

THE OBJECT AND THE TASK OF THE « ALLGEMEINE OESTERREICHISCHE VIEH-
VERWERTUNGSGESELLSCHAFT » (*General Austrian Society for the Sale of Cattle*)
Appendix to the report for 1915-1916, Vienna 1916.

The General Austrian Society for the Sale of Cattle was founded in 1913 on the advice and with the co-operation of the Imperial and Royal Ministry of Agriculture. Its aims are :

1. The establishment and use of a public market for breeding and income-producing stock which will be equally accessible to production and to trade in the kingdoms and provinces represented in the Reichsrat ;
2. The purchase and sale of breeding and income-producing stock and stock kept for slaughter, on behalf of the society itself and others ;
3. The acquisition and letting and employment of properties, the fattening of stock and the realization of profits thereon, and the formation and management of enterprises intended to favour the sale of live stock — the exigencies of provisioning being always taken into account fairly.

The chief object of the society is thus to establish business relations between producers of live stock and those who realize profits on stock on the one hand, and between butchers and others analogously placed and consumers on the other.

The society's public usefulness is shown by the fact that it takes into account the wants of all interested persons :

a) In that ever since its foundation it has offered to breeders of live stock the opportunity to sell their produce as little expensively as possible, delivering them from the onerous guardianship of a superfluity of middlemen ;

b) In that it takes common interests into account, participating, by its intervention in the central market for live stock of St. Marx and the great market, in providing meat for the town.

The town of Vienna, numerous agricultural organizations, certain of the principal corporations, certain agriculturists, the *Allgemeine Depositenbank* — such are the organizations which participate in the enterprise financially. As regards the financial management of its business the by-

laws establish that the society is a commercial enterprise which should fulfil the elementary duty devolving on every such organization, that namely of meeting its working costs, paying fair interest on its working capital, and forming certain funds which will allow it to reach as soon as possible the end it has before itself.

With a view to this end the society undertakes the following business :

1. The sale on commission of live stock for slaughter in Vienna and other towns of the province ;
2. Trade in live stock for slaughter, on its own account and on the basis of the business relations already mentioned ;
3. The sale of slaughtered stock and meat in Vienna and the provinces, on commission and on the society's own account ;
4. The sale of breeding and income-producing stock.

The trade in breeding and income-producing stock, which has existed since the initiation of the enterprise and has become a special branch of the society's business, has affected 20,000 heads of stock a year. The society furnishes an abundant supply of milch-cows from the Alps, Switzerland and Holland to Vienna and other large towns. From most farms to which it sends milch-cows, stock intended for fattening and traction-oxen, it receives stock fattened for slaughter. The society has given a most important place on its future programme to the reorganization of the Viennese market by the formation of regular markets for breeding and income-producing stock.

The live stock market in Vienna is exclusively occupied by butcher's stock : the cattle brought to it are all without exception slaughtered, whether they be fitted for the butcher's market or not. Naturally many animals always enter it which have not reached the right stage for butchery, and a deplorable state of affairs results.

The society therefore proposes in the interests of all concerned to debar from the slaughterhouse this unfit stock, that is to say to prevent or at least to reduce irrational slaughtering. Such an end might be reached by joining to the markets for fat stock complementary markets for breeding and income-producing stock. There should be a large weekly market of the latter kind before that of stock for slaughter, into which beasts unready for immediate slaughter would thus not enter even although economic or speculative motives caused them to be sent to it. The selection thus practised would cause those interested to procure and sell in the market the animals which they raised, fattened, utilized for traction or otherwise, or which they had bred for these various ends. At the same time a choice could be made of animals suitable to slaughter or unsuitable to be kept, and as soon as the first market closed they could be taken to that for butcher's stock. Thus the latter would secure stock of a very different quality, suited to the demands of the inspectors of meat and the interests which ought to be respected. In practice the course of this trade would be such that most of the animals brought to the market for income-producing stock would be restored to agriculture and would return to the butchers' market from three to six months later, when their condition was better suited to

the end in view. They would have been fed and have gained noticeably in weight and quality. Thus consumption would not be robbed of this stock which would on the contrary eventually augment the quantity of meat. Since the society has already established business relations with large and small stock keepers, breeders and fatteners in all the provinces, the institution and organization of such a market as we have described — at Vienna in the first place — would meet with no insurmountable obstacles.

The Society's *share in Vienna's provision of meat* amounted in its first year — 1913-1914 — to 5 per cent. of the total supply and to 13 per cent. at the end of the second year. The society has already, by this means alone, acquired on the Viennese market an influence which may increase, the more so because, being constantly superintended by the government, it can face extreme fluctuations in prices.

Guided by the moral duty imposed by its participation in the provisioning of Vienna, the society has often undertaken risky business by which it incurred loss, as for example the importation of live stock for slaughter and meat from northern countries. Its very extensive business relations and its important functions of public supply allowed it however to attain during its third year to a turnover of about 170 million crowns (1) whence it derived a net profit of 5,000,000 crowns.

When the war broke out the society was obliged to become busy over the supply of war provisions, to which the course of events naturally gave a large preference over normal business. It offered to supply live stock at cost prices, as to which it furnished evidence, adding only the actual costs of the transaction. Before the stage of providing public supplies of this kind was reached, the society was for long responsible for buying on its own account large quantities of live stock for slaughter and placing them at the disposal of the imperial and royal administration of the army at given times and on given terms. This mode of delivery involved enormous risks not exemplified in the case of delivery on commission, those namely of the dangers run by the stock and the losses they suffer during transport by railway. They are then exposed to loss of weight, to the outbreak of illnesses, and to the infection of epizooty attaching to large centres in which stock are collected. We should mention also the fluctuations of prices which cannot be anticipated and for which no allowance can therefore be made.

The representative of the Imperial and Royal Ministry of Agriculture, by which the entire administration is controlled, takes part in all the society's councils, meetings and assemblies and can control at any time the management of its business and enterprise.

Finally its by-laws, the governmental decrees and its engagements oblige the General Austrian Society for the Sale of Cattle to limit the interest on its shares to 5 per cent. and to pay a part of its profits into the funds of which the constitution is prescribed. As for eventual excess profits the Imperial Ministry of Agriculture will decide how they are to be employed.

(1) 1 crown of gold = 10 $\frac{1}{12}$ d. at par.

UNITED STATES.

- I. THE CO-OPERATIVE PURCHASE OF LIVE STOCK IN WISCONSIN. — Article by Howard I. Wood in *The Banker Farmer*, Vol. IV, no 2, January 1917, Champaign, Illinois.

In order to improve the quality of milch-cows and secure the general inspection of their milk some banks in Marinette county, Wisconsin, formed in 1915 a Co-operative Cattle Buying Association. The members of this organization are business men, farmers and the eleven banks of the county. In 1915 it bought only one car-load of cattle for the farmers, who showed a disposition to await further results before doing more. But every farmer supplied with cattle was satisfied, and in 1916 confidence had been established. During 1916 fourteen car-loads of cattle, averaging thirty head to a car, were imported from various parts of Southern Wisconsin; and a large number of good animals were also bought from dealers in the county and sold to farmers who wished to build up their dairy herds.

The organization is very simple. The eleven banks advance money for the purchase of pure-bred or grade Holstein or Guernsey dairy cattle, and allow buyers to pay for them at the rate of from \$3 to \$5 per month a head, paying interest at the rate of 6 per cent. Payment can be made at the bank nearest to the home of the purchaser, who gives the necessary security. When enough orders have been accepted to make up a car-load the buyer of the association goes to some locality where he can obtain an entire car-load in one lot at favourable prices. Expenses of transport are thus kept low. Hitherto the cattle delivered in Marinette county have cost only \$9 a head more than the price at which they were bought. The buyer has always had without charge the services of an expert dairy cattle buyer from the university of Wisconsin.

A small percentage is laid aside for a sinking fund in case losses due to unsatisfactoriness of the bought stock have to be made good. But for the fifteen car-loads, costing altogether about \$40,000, there have been only two or three minor cases of taking money from this fund.

The number of cattle bought and the amount of money spent give only a meagre idea of what the association is doing. Besides the actual addition to the value of the farms, an entire county has been brought to believe in the value of dairy farming. Bankers have been taught what a dairy cow is worth and what it ought to produce annually. It has become easier for all dairy-farmers to obtain credit in the banks. A practical proof of success is the fact that ten new cheese-factories were opened in 1916.

We reproduce a series of questions and answers which show the association's skilful method of explaining to farmers its procedure and the advantages it offers:

“Question. How much do I have to pay down when I get my stock?

" Answer. Nothing is required, but of course it is to your advantage to pay a little down if possible.

" Q. I like to see my stock before I get it. Would it be possible for me to go along and see the stock before they buy it ?

" A. Yes. If an applicant desires he may go with the men who buy the stock and pick out those he wishes, but he must do so at his own expense.

" Q. My neighbour has a good cow for sale, cheap, and I would like to buy it but have not the money. Will the trustees buy it for me and allow me to pay for it on time ?

" A. Yes, under certain conditions. If your application has already been accepted the trustees will send some one to see the cow, and if their report concerning her is favourable she will be bought for you.

" Q. How many cows will the association buy for one person ?

" A. There is nothing to limit the number provided the applicant shows he has pasture and feed for them and can give proper security. The intention is not to buy whole herds for any one person but rather a few head, and give the farmers who need assistance a start.

" Q. I like Jersey cattle : will the trustees help me to get them ?

" A. When the present plan was inaugurated it was decided to restrict the time payments to Holstein and Guernsey cattle only. The reason for this was that there were more of these in the county, and it would be better to encourage the breeding of them and make this a centre for these breeds. If however you can pay cash they will help you to get any breed of dairy cattle that you wish.

" Q. I have the money and intend to pay cash for my stock : what advantage is there in buying through the association ?

" A. The advantages to you are these : you get cheaper transportation rates because the stock is shipped in car-load lots ; you also have the services of an expert judge of dairy cattle, free of charge, to assist in the selection of your stock.

" Q. I do not like to give a chattel mortgage on anything : will the trustees accept my note if some responsible person would sign it with me ?

" A. Yes, the trustees will accept a note if it has a good endorsement, and not require a chattel mortgage. The only object of the mortgage is to secure the note and protect the guarantors, as far as possible.

" Q. I am anxious to raise beef cattle. Will the trustees help me to obtain them and allow time payments ?

" A. No. The trustees have received their instructions to buy only Guernsey and Holstein cattle, either grades or registered, and allow payment on time.

" Q. I would like to pay for my cattle in payments six months apart, rather than monthly. Could that be arranged ?

" A. Yes. The plan of monthly payments is not ironclad, and we will try to accommodate those who, for good reasons, desire some other method of payment.

"Q. Is it always possible to get exactly the kind of stock everyone wants?

"A. Sometimes it is very possible and in certain instances it may be impossible. Where such difficulty is encountered the men who are buying use their own best judgement and get as near as possible what the applicant desires.

"Q. If I do not like the stock when it arrives will I be compelled to accept it?

"A. Yes. According to the terms of the application and agreement you are bound to accept the cattle when they arrive. The trustees are your agents and you must take the stock they get for you.

"Q. How much commission is charged for buying the stock?

"A. None whatever. In addition to the actual cash expenses of getting the stock and delivering them, a charge of two dollars per head is made, to cover necessary expenses of printing, postage, interest on money used on buying the cattle, etc. In time this may possibly create a small reserve that could be used to pay any losses that might occur.

"Q. Isn't there a danger of tuberculosis when stock is shipped from so many farms in different sections of the State?

"A. None whatever: the cattle are all tested for tuberculosis before being shipped."

The following is the form of "application for time payment":

"The undersigned hereby applies to trustees appointed by the Marinette County Advancement Association, for the loan of . . . , dollars, or a sufficient sum to purchase . . . cows, . . . heifers and one male . . . years old.

"The breed to be . . .

"The following is a true statement of the undersigned's resources and liabilities:

Resources.

Description	
Acres land cleared . . .	
Value \$	
Acres partly cleared . .	
Value \$	
Acres wild	
Value \$	
Horses and cattle, value .	\$
Machinery . . . »	\$
Other resources . . »	\$

Liabilities.

Amount owing \$
To whom?
Nature of security?

"I. The Undersigned For Value Received, Hereby agrees to pay said Trustees, or their order, on or before three years from this date, the sum required to pay the entire cost of the animal purchased by him, with interest at 6 per cent. per annum, interest payable semi-annually, such obligation to be evidenced by a promissory note to the undersigned.

"2. The Undersigned Further Agrees, to pay to said Trustees or their assigns at stated intervals each month not less than . . . per month for each animal so purchased by him until the aforesaid sum and interest is fully paid.

"3. The Undersigned Further Agrees, to breed the cows and heifers so purchased to a registered sire of the same breed.

"4. The Undersigned Further Agrees, to secure the payment of said sum and interest and the performance of this agreement, by a promissory note and a chattel mortgage to said trustees upon the animals so purchased and the following additional security . . .

"5. The Undersigned Further Agrees, To accept the animals that are purchased for and delivered to him by the trustees hereunder and pay for the same as herein provided.

". . . . Animals will be labelled at time of purchase and delivered to party ordering same at point designated by trustees. Upon delivery the purchaser shall pay to the Trustees the original cost of the animals together with the expense of purchasing and delivering of said animals . . .".

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2. NORTH CAROLINA RURAL BANKS. — *The Country Gentleman*. Philadelphia, 9 December 1916.

North Carolina was the first state in the Union to establish, by legislative enactment, rural credit unions. Short-term loans are made to farmers at six per cent. interest.

These rural banks are modelled on the country banks of Northern Italy, and loans are restricted to purposes of acquiring land and making farm improvements. The initial North Carolina society was organized at Lowe's Grove, Durham Country, on 20 January. Since then six similar clubs have been created. The marketing division of the State Department of Agriculture controls the unions and a superintendent has been employed as whole-time officer.

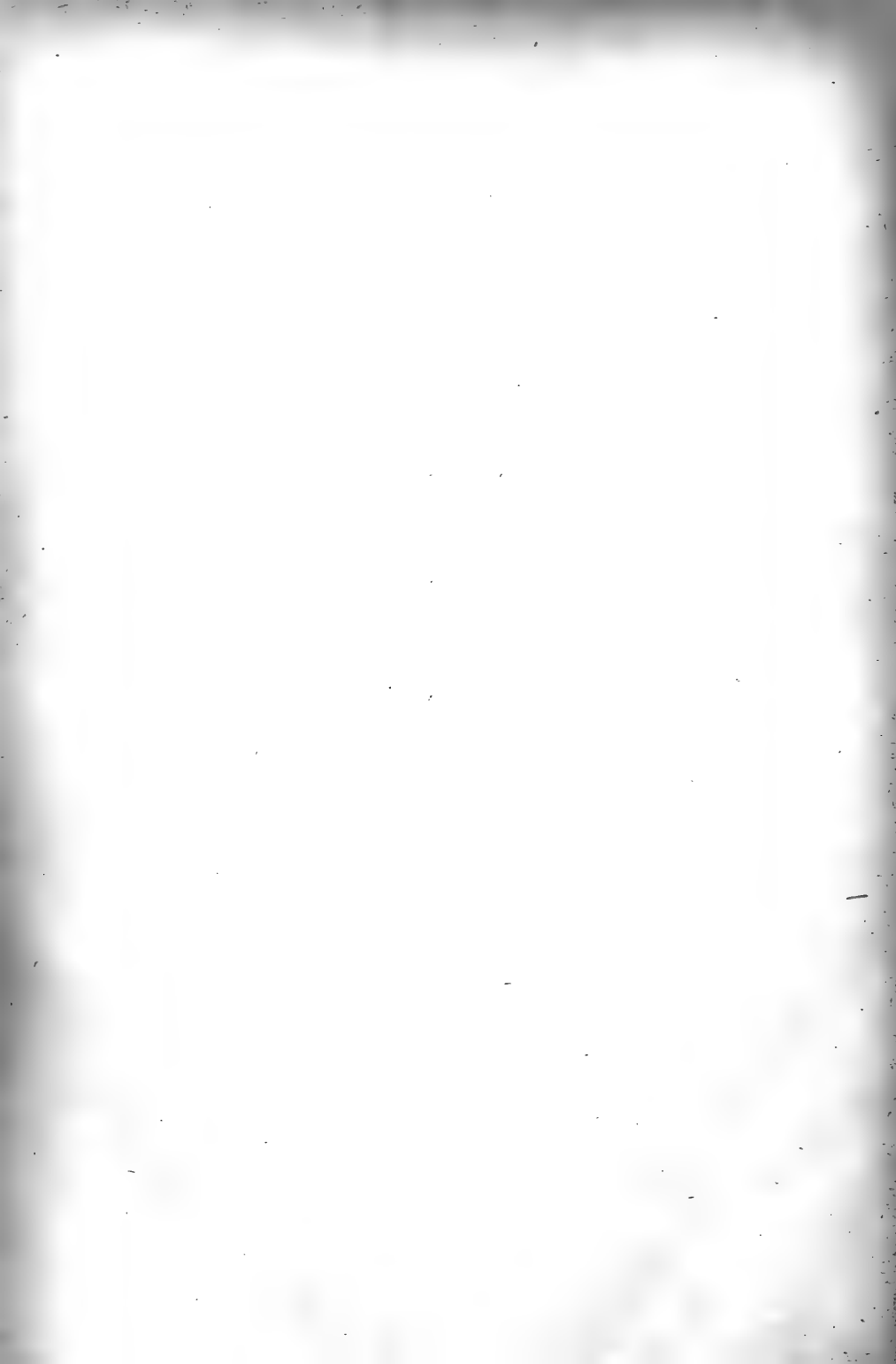
A recent monthly statement as to the condition of these banks makes this composite showing: membership, 252 farmers; depositors, 38; payments on shares, \$1,763.20; deposits, \$1,654.68; loans, \$3,203.05; number of borrowers, 35; discounts, \$1,290.00; cash in banks, \$1,597.89; total resources, \$4,883.70.

While the chief aim of the unions is to escape payment of exorbitant rates of interest on loans for farm improvements, co-operative effort in other fields is encouraged. The Lowe's Grove Union reports a purchase of 114.3 tons of fertilizers for a cash payment of \$3,050.02. The saving effected by the members of the union by buying co-operatively instead of at the prevailing community prices was \$667.43. Drowning Creek, another credit union, reports "the purchase of a carload of cottonseed meal co-operatively

by eight members. They got the same prices and discounts that the richest man of the biggest plantation in the State could get ”.

Neighbouring city banks and deposits of members are the sources of revenue of the rural banks. The union is empowered to borrow money from any source, provided such indebtedness do not exceed the capital, surplus and reserve fund.

Essentially the plan is as follows: members of the society in need of financial aid make application to the finance committee, composed of farmer members. Loans are pledged at six per cent. interest, without commission, on property as security. Tenant farmers obtain loans on securing the indorsement of their landlords. The farmer buys his supplies for cash according to the plan of the co-operative society.



Part II: Insurance and Thrift

CHILE.

THE FIRST THRIFT CONFERENCE AND THE SAVINGS BANKS OF CHILE.

SOURCES :

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- ROMERO HERRERA (Alberto) : Las Cajas de Ahorros (Savings Banks). Antecedents, Chilean Regime, Conclusions. Communicated to the same conference. *La Información*, No.8, Santiago, November 1916.
- ARCE, LEONCIO : Los resultados lejanos de las Cajas de Ahorros (The Far-Reaching Effects of Savings Banks). *La Información*, No. 5, Santiago, August 1916.
- BAEZA ESPÍÑEIRA (Agustín) : Lo que significa la Población agrícola de Graneros (*What the Agricultural Colony of Granero represents*). *La Información*, No. 1, Santiago, April 1916.
- EL MERCURIO, journal of Santiago, years 1915 and 1916.

Our readers are already aware of the importance acquired in recent years by savings banks in Chile. We have already had occasion to notice in this Review the influence of these institutions on the development of mortgage credit in the country (1). The importance of Chilean savings banks becomes however more remarkable when it is remembered that Chile is not an exclusively mining country but eminently one of agriculture and colonization, and that a large part of the capital accumulated in these banks emanates from the rural districts. The activity of the savings banks is therefore largely directed towards procuring advantages for the rural population.

(1) See *Monthly Bulletin of Economic and Social Intelligence*, March and April 1913, pp. 93, 109.

The development realized in spite of their youth by the Chilean savings banks, and their wish to justify as completely as possible the country's confidence and esteem, caused a meeting or congress of representatives of all such banks in the republic to be held at Santiago towards the end of 1915. Its labours lasted into the first week of 1916. In this First Thrift Conference the work of recapitulating the results obtained by the various banks, from a historical and an economic point of view, was undertaken; and the method by which their development and progress could be facilitated, allowing for increasing public support, was studied. With this object the meeting approved the formation of new services especially beneficial to small saving and therefore to the working classes. Some of them have already been at work in the banks since the last months of 1916. We will explain their organization when we have briefly reproduced some of the data as to the activity and evolution of Chilean savings banks which were placed before the meeting.

§ 1. DEVELOPMENT AND EVOLUTION OF SAVINGS BANKS.

In the article to which we have already referred the origin and organization of Chilean savings banks are explained (1). We will here give some data as to their activity and their character.

We would recall that the pioneer savings bank of Chile was that of Santiago, founded on 6 September 1884 on the initiative of the Mortgage Credit Bank. The law constituting the latter provides (art. 126) that "when the reserve fund is sufficient to fulfil the objects specified by the law the council will assign its receipts in delayed interest to the assistance and encouragement of the savings banks which are founded and which, by the terms of their by-laws, must invest their funds in letters of credit".

There had, it is true, already been attempts to institute savings banks in Chile; but these attempts had failed, and it may be stated that hitherto their sole result had been to provoke the suspicion of the mass of the people. To this fact must be ascribed the prudence with which the organization of the new institution was undertaken, and the measures of foresight and guarantee by which it was safeguarded.

The Savings Bank of Santiago was placed under the auspices of the Mortgage Credit Bank, the latter's managing council being responsible for its administration and superintendence. The Mortgage Credit Banks placed at the disposal of the savings bank the necessary capital (50,000 pesos) (2) for the constitution of its reserve fund and its guarantee fund, and further allotted to it an annual grant with which to meet all costs of management. On these terms the Savings Bank of Santiago was orga-

(1) See the article, already cited, in our issue for April 1913.

(2) 1 peso of gold = 1.512 s at par.

nized as a private establishment under the general law of 22 August 1861, and it formed a corporation in virtue of the decree of 27 June 1884 which approved its by-laws.

In order to extend the advantage of thrift to other provinces and encourage it throughout the country, the council of the Mortgage Credit Bank accepted from the government a further charge to form other savings banks in different towns, with the help of sums supplied for such end by the State. New banks were thus founded between 1901 and 1910 in Valparaíso, Iquique, Concepción, Antofagasta, Talca, Chillán, Valdivia, Serena, Curicó, Temuco, Tacua and San Felipe.

As the activity and the working of these establishments won complete approval, the public authority prescribed by the law of 22 August 1910 that all those in existence and all which should in future be constituted should be grouped in a single institution called the National Savings Bank. Its direction was entrusted to the council of the Mortgage Credit Bank; it received complete administrative autonomy and full liberty to organize its activity.

We should note however that this fusion did not affect the Savings Bank of Santiago which continued to do business within the province from which it took its name in the most complete independence of the National Savings Bank, although it fulfilled the latter's function of a central bank within Santiago province where it reigned exclusively. Thus it has come about that there are now two organs of thrift in Chile: the Savings Bank of Santiago, a private establishment; and the official National Savings Bank. The two are absolutely independent of each other, but generally act in agreement in order to encourage thrift and popularize its principles. Moreover both are directed by the managing council of the mortgage credit bank.

Since 1911, that is since its formation, the National Savings Bank has founded central offices at Rancagua, Canquenes, Linares, Angeles, Asorno and Puerto Monti; and these make, together with those founded in the preceding period, a total of eighteen central offices. In addition thirty-five branch offices and many post-office agencies are active in the country.

Since they have been founded the Chilean savings banks have always conducted their business with perfect regularity. Their administrative council, which has most extensive powers, has reformed and modified their organization with a view to a better discharge of their tasks.

At first the by-laws allowed deposits to be invested only in letters of credit of the Mortgage Credit Bank. This investment seemed at first to be justified because it fulfilled the legal provision authorizing this institution to employ its funds for the encouragement of savings banks.

But subsequently, in order to allow depositors to utilize their deposits rapidly as a means of becoming landowners, and also in order to encourage the formation of small holdings, the administrative council made the decision — still recent — that deposits may also be used for the purchase of properties to be ceded immediately to depositors, on certain conditions.

As the savings banks have never fixed a minimum for deposits all workmen and artisans may bring them their savings, however modest. For this purpose savings stamps and money-boxes have been instituted. The stamps are sold at 0.20, 1 and 5 pesos ; and are placed in special books which are presented in order that they may be converted into deposits.

The Savings Banks of Chile use for their business non-transferable savings-bank books, and have opened two classes of current accounts — those repayable at sight and those for fixed terms and on conditions. Certain restrictions as to available sums and the orders which may be issued are imposed with regard to the former. Interest at the rate of 5 per cent. is paid on savings deposits.

Savings banks are exempt in Chile from the payment of the tax on stamped paper and the stamp tax, as from taxes on the postal orders they send. They pay no postage on their postal and telegraphic correspondence.

§ 2. THE ACTIVITY AND THE DIFFERENT SERVICES OF THE BANKS.

The development of the business of the Chilean savings banks was at first somewhat slow, but was afterwards accelerated — especially during the last five years — so that the lack of initial speed has been outweighed. Thus thirty-two years after the foundation of the Savings Bank of Santiago the banks at work in the country have a total sum in deposits of 107,415,241 pesos, corresponding to 604,420 savings-bank books.

In view of this diversity in the intensity of the development of their business, the activity of the banks may be divided into two periods — one of weak development lasting from the foundation of the Savings Bank of Santiago to the constitution of the National Savings Bank, and one of intense development lasting from the time of that constitution until the present day. This is not to say that the increased activity is due solely to the National Savings Bank, for the development of the Santiago bank is perhaps more considerable in the second period. It is however true that the constitution of the national bank was coincident with the winning by savings banks of public favour, and responded to the consequent demand ; and that it marked the beginning of their most active period.

The following table shows the movement of deposits in these two periods, for every five years and for every year, respectively.

The Deposits and the Savings-bank Books of the Savings Banks.

On 31 December	Savings Bank of Santiago		National Savings Bank		Total for the two institutions	
	Books	Deposits	Books	Deposits	Books	Deposits
		pesos		pesos		pesos
1884	861	76,225	—	—	—	—
1889	15,124	1,733,429	—	—	—	—
1894	32,742	3,642,787	—	—	—	—
1899	41,708	3,429,917	—	—	—	—
1904	60,299	5,296,613	—	—	—	—
1909	85,640	12,055,063	—	—	—	—
1910	91,685	14,335,451	206,145	19,525,874	297,830	33,861,325
1911	112,232	20,933,019	256,181	26,301,754	368,413	47,234,773
1912	132,649	25,439,913	304,164	40,088,069	436,813	65,427,982
1913	153,000	29,427,391	359,622	57,032,670	512,688	86,460,061
1914	165,815	32,523,431	396,488	62,327,057	562,303	94,850,488
1915	177,481	35,213,213	426,948	72,202,028	604,429	107,415,241

These figures give rise to several observations. It is seen that those having reference to the Savings Bank of Santiago show a larger proportionate increase in the number of savings-bank books than in the amount of deposits, while the converse is true of those referring to the National Savings Bank. Hence it may be deduced that working people deposit small savings more largely in the former than in the latter establishment. On the other hand the fact that from the time of its constitution the services of the National Savings Bank were — by its branches and agencies and the post-offices — made available for the rural population, and the fact that the total sum of deposits for the whole country is increasing considerably, allow the conclusion that this increase is greatly due to an influx of deposits from rural districts.

The most important point brought out by the figures is however that a certain habit of saving has been little by little acquired by the population, and that there is absolute confidence in the investment offered by savings banks to capital and certainty as to their soundness. As regards the employment of funds they are converted into first class commercial values or into real estate, on behalf of the depositors.

The repayment of deposits is subject to no risks: the banks make no difficulty about reimbursements — so long of course as the term of deposit has been exhausted. Up to the present — even during the periods of economic crisis through which the country has passed — the savings banks

have not deferred payments and reimbursements. It is even a fact that during these periods there has not only been no diminution but also a slight intensification of the movement of deposits. During the months of 1914, which were characterized by general cautiousness and the paralysis of business and of agricultural and industrial work, as a consequence of the European war, the savings banks had to repay the deposits of many unemployed labourers and workmen. This demonstrated completely to the whole working-class population the advantages they could derive from the banks in times of famine and unemployment. The banks were able to meet the withdrawals without any moratorium. General confidence in them was strengthened; and the remarkable circumstance was produced that at this abnormal time the increase of deposits in the banks of the centre and south not only compensated for the important withdrawals from the banks of the north — in consequence of the crisis in the saltpetre industry — but caused the total business of the year to show considerable improvement on that of 1913, as is seen from the foregoing table.

The reserve funds accumulated by these two institutions, the Santiago Bank and the National Bank, amount to 3,361,234 pesos. In view of the fact that the annual profits begin to reach a considerable sum, the administrative council of the bank hopes the time is not distant at which their reserves will enable them directly to advance social progress in the country and the development of its wealth.

The management of the banks has modified their organization wherever experience has made this advisable in view of the constant progress. Deposits on current account with a special service of cheques have been introduced, as a complement to the ordinary savings deposits which bear interest at a higher rate but which are limited in amount and subject to certain rules. Thanks to these deposits on current account the small proprietor, small tradesman or manufacturer who has a deposit in a savings bank can also deposit his other funds there, thus localizing the movement of his business. The usefulness of deposits of this class compensates for the costs entailed by small savings deposits, and allows moreover the accounts called privileged to enjoy a special rate of interest.

In all the offices of Chilean savings banks a service of cheques payable at sight and of telegraphic orders has been established. The service of savings stamps exists throughout the country and aims at collecting savings less than ten pesos in amount. Post offices and thrift among school-children are responsible for popularizing this device. The money-boxes have also been very well received, 8,000 of them having been distributed in four years.

§ 3. MEASURES FAVOURING THE WORKING CLASS IN TOWNS AND IN THE COUNTRY.

The work accomplished for the working class by the savings banks of Chile is not limited to the direct encouragement they give to popular

thrift, nor their indirect action in favour of credit, but has also other forms and aims at procuring as much well-being as possible for working people in the towns and in the country.

Therefore side by side with the services of which we have briefly spoken, and which are peculiar to savings banks, there are forms of activity which in a measure enter into the same sphere and which complete these services by rendering it possible for the humbler classes of society to utilize more rapidly and more profitably the fruits of their economy and their thrift.

The first initiative of this kind dates from 1909 and consisted in the building of hygienic and cheap houses for depositors in the Savings Bank of Santiago. This bank bought lots of land in various workmen's quarters in Santiago and began to build houses on a general plan, making allowance for the especial needs of each quarter. When the building was completed the bank proceeded to sell the houses to its depositors on the following terms: a cash payment of 25 per cent. of the value of the house at the time of entry into possession, and the payment of the balance — namely 75 per cent. — in monthly instalments usually spread over fifteen years and secured by a mortgage on the house.

In 1911 and 1912 eighty-eight cottages were thus built on four lots of land in the Huemul quarter: they represented a value of 1,106,000 pesos and were sold by the savings bank to its depositors. The results obtained in the Huemul quarter decided the council to continue this work, undertaking new building in the Nuñoa, Providencia, Arenida and Paz quarters.

For the group of dwellings constructed in the Huemul quarter the formation has recently been begun of an institution of public benefit which — according to the plan we have been able to inspect — will comprise a maternity home, a milk depot, a children's hospital, a children's home, a model *conventillo* (1), etc. This will certainly render valuable service to the many working-class families of the neighbourhood.

Another measure belonging to the same category was applied in 1909. In that year the administrative council decided to open a special branch of the Savings Bank of Santiago which should facilitate the purchase of land by its depositors. Special rules for the business of this section provide that when a depositor wishes to acquire a property he must appear before the administrative body of the bank and specify the terms on which an estate is offered to him. The bank then studies antecedents, examines titles, has the property valued, and buys it — paying the whole price in cash — if it deem the transaction to be to the advantage of the depositor. It then resells the property to him, he paying only a small sum in cash and the rest in monthly instalments which are graduated to cover a suffi-

(1) The *conventillos* are agglomerations of many small dwellings, usually more or less insanitary and uncomfortable, which are inhabited by the employees of farms.

ciently long period and comprise interest and amortization (1). Properties which are the object of these transactions must be free from all burdens. The section for the purchase of properties has thus, since it was constituted, sold more than 400 holdings in real estate of which the value is more than 7,000,000 pesos.

Finally, following the line of conduct adopted by the council and in the interest of small rural property, the bank decided in 1910 to buy an area of 232 hectares (2) which adjoined the station of the State railways at Graneros, in order to divide it and resell it in parcels, converted into small model farms or as bare land, and to adopt the procedure followed in the case of the properties of which we have already spoken.

Having noticed this enterprise of the savings banks which aims solely at procuring advantages for the rural working-class population, we will now speak of the colonist group called the "agricultural colony of Graneros". As has been said its land has an area of 232 hectares which were bought for 551,000 pesos. Seventeen hectares were at once resold to a purchaser who intended to instal a large establishment for the exercise of various rural industries and for giving advice to the colonists. The land remaining available — 215 hectares — has been divided into lots of about one hectare each which are still being sold. More than two thirds of them have been sold hitherto.

(1) The period is generally eleven years and seven months. The purchasers repay their debt according to the value of the property as follows:

Value of the Property	Sum to be paid in Cash	Monthly Instalments
pesos	pesos	pesos
1,000	150	8.50
2,000	300	17.00
3,000	450	25.50
4,000	600	34.00
5,000	750	42.50
6,000	900	51.00
7,000	1,050	59.50
8,000	1,200	68.00
9,000	1,350	76.50
10,000	1,500	85.00
11,000	2,200	88.00
12,000	2,400	96.00
13,000	2,600	104.00
14,000	2,800	112.00
15,000	3,000	120.00
16,000	3,200	128.00
17,000	3,400	136.00
18,000	3,600	144.00
19,000	3,800	152.00
20,000	4,000	160.00

(2) 1 hectare = 2.47 acres.

This agricultural settlement places small farming properties within the reach of the rural proletariat. The colony is provided with large avenues, special plantations, an adequate system of irrigation, ditches for outflow and drainage, captations of underground waters, installations of drinking water and electric light, a farm school for practical instruction as to growing all crops, a chair of theoretical agriculture, model stables, etc.: — in a word all that contributes to the agricultural labourer's intellectual development and the improvement of his social position.

This colony has its special savings bank as have all those formed by the Chilian savings banks.

§ 4. NEW SERVICES OF THE BANKS ORGANIZED IN ACCORDANCE WITH THE RESOLUTION OF THE FIRST THRIFT CONFERENCE.

As we said at the beginning of this article a congress of representatives of all savings banks in Chile, called the First Thrift Conference, met at Santiago in December 1915. Its object was to study methods which would allow an even better response to public trust and esteem by a multiplication of the advantages provided by savings banks, and to intensify the propaganda of thrift as much as possible by giving it a uniform orientation.

Various new departments having such object were proposed and examined by the representatives of the savings banks. Some of them have been adopted and are now at work; others will soon become actual. We will attempt briefly to explain the principal of them.

In the first place the conference studied with much interest the formation of capital becoming due after a certain period and of old-age annuities, problems which are very important to social thrift; and it decided unanimously to constitute two services *ad hoc* in banks receiving deposits, in order to form a capital of savings and to constitute an annuity or pension falling due after a period. The *savings and annuity bonds* which fulfil these two objects were instituted on the initiative of the conference.

Before we examine these bonds we must state that they are non-transferable and, by the terms of the law, exempt from seizure.

They belong to two classes, according to whether the capital is formed by a single deposit or weekly deposits. In the former case they may fall due in five, ten, fifteen, twenty or twenty-five years according to the amount of the single deposit, as follows:

A) Basis 7 $\frac{1}{3}$ % annually.			
Falling due after		Sum deposited	
5.	. . . . .	pesos	695
10.	. . . . .	"	480
15.	. . . . .	"	339
20.	. . . . .	"	230
25.	. . . . .	"	160

When the sum corresponding to one of these five periods has been deposited the bank issues to the depositor a *savings bond* of 1,000 pesos, payable on the day on which it becomes due. If the depositor die before this date his heir can hold the bond for the remaining period or, if he prefer, can demand liquidation. In the latter case the bank will pay him the deposited sum, plus interest at the rate of 6 per cent. a year up to the day of liquidation.

The *savings bond constituted by weekly deposits* is issued like the preceding one, and is for 1000 pesos falling due after five, ten, fifteen, twenty or twenty-five years, the depositor being bound to pay the following sums half-yearly :

B) Basis : 6 $\frac{1}{2}$ % annually.

Falling due after	Amount of weekly deposits	Total payments
5.	pesos 84	pesos 840
10.	35	700
15.	19.50	585
20.	12	480
25.	8	400

Six months after the payment of the last weekly deposit the bank will pay the depositor the amount of his bond, that is 1000 pesos.

If any person acquiring a bond of this description make his weekly deposits unpunctually he must pay interest for the period of delay at the rate of 10 per cent., and if the delay is for more than eighteen months the bank may liquidate the operation. In this case however it repays to the bearer of the bonds the sums he has deposited, plus interest at the rate of 6 per cent. up to the day of liquidation. If he die his heir may demand a liquidation or continue to make due payments. In either case the procedure is that applied where a savings bond constituted by a single deposit is concerned.

The annuity bond produces a fixed weekly sum for five, ten, fifteen, twenty or twenty-five years, in return for the deposit of a given sum which buys the bond, as is shown by the following table :

C) *Basis* $7\frac{1}{2}\%$.

Number of years for which the depositor receives the income	Single Deposit made by him	Half-yearly income paid to him by the bank	Total sum paid by the bank during the stipulated period
	pesos	pesos	pesos
5	820	100	1,000
10	1,390	100	2,000
15	1,785	100	3,000
20	2,055	100	4,000
25	2,245	100	5,000

The bank begins to pay the income six months after the deposit has been made. It is, like the savings bond, non-transferable and exempt by law from seizure.

An annuity bond can be bought so that the purchaser receives the income after a period of five, ten, fifteen, twenty or twenty-five years, instead of during one of these periods. The sum deposited of course varies considerably in each case, for it depends on the number of years which have to run before the bank has to begin to pay the rent and the number for which it is payable. The following table shows these variations:

D) Basis : $7\frac{1}{2}\%$ for the formation of the capital and $6\frac{1}{2}\%$ while the income is payable.

Single initial deposit	The bank after	Pays each week to the purchaser of the bond	For	Total sum paid by the bank
pesos	years	pesos	years	pesos
585	5	100	5	1,000
405	10			
280	15			
195	20			
135	25			
1,005	5	100	10	2,000
695	10			
480	15			
325	20			
230	25			
1,315	5	100	15	3,000
910	10			
630	15			
435	20			
300	25			
1,535	5	100	20	4,000
1,065	10			
735	15			
510	20			
355	25			
1,700	5	100	25	5,000
1,175	10			
810	15			
560	20			
590	25			

The new enterprises are seen to be exclusively enterprises of thrift aiming at no gain : the bonds representing them are based solely on compound interest.

It is easily understood that the new services will be of especial benefit to the working classes. A savings bond of 1000 pesos, the capital of which has been constituted by weekly payments for twenty years, requires a deposit of 12 pesos every six months, and may therefore be said to be within the reach of every workman, however humble, since it involves a saving of only 0.50 peso a week.

The other services organized on the basis of the research and deliberations of the First Thrift Conference, which will shortly become active if they are not so now, are : *a*) a system of cheques with special depositing forms ; *b*) special or privileged savings accounts ; *c*) safes, and *d*) the organization of a home service within the sphere of each central or branch office. The list of these services indicates their nature which has no particular interest for us. They will however give a certain elasticity to the mechanism of the savings banks where the most modern banking operations are concerned.

We will end these brief notes with the statement that the First Thrift Conference proved by figures and data the importance of the work accomplished by the Chilian savings banks. The figures we have reproduced show a constant and increasing rise in the curve representing the deposits received by this bank. It has been possible to utilize the savings for the increase of the wealth of the country and social progress. The workmen's dwellings, the purchase of rural properties, the formation of colonies of small proprietors, and the new services and commercial schemes show that the Chilian savings banks have left behind them their initial phase of hesitation and have succeeded in centralizing savings which will doubtless serve as a basis to the future economic development of the country.

URUGUAY.

MORTGAGE INSURANCE.

SOURCE :

BANCO DE SEGUROS DEL ESTADO. SEGURO HIPOTECARIO. (*Insurance Bank of the State, Mortgage Insurance*). Impr. Juan J. Dornaleche. Montevideo, 1916.

§ I. PRELIMINARY REMARKS.

The growing development in this country of long-term mortgage operations, thanks to the facilities afforded by the Mortgage Bank of Uruguay and other similar institutions, has given birth — among other enterprises of the State Bank of Insurance (1) — to a scheme for insurance which aims at providing for the payment by mortgagers, in the case of their death, of the interest and the amortization quotas which they have engaged to pay. In other words an attempt has been made to find a method of avoiding that the heirs of a mortgager, generally his wife and children, be in the sad necessity of having to give up the property they have inherited because they cannot continue to fulfil the mortgager's engagements; of avoiding, that is, that they inherit not a property but a debt which they cannot pay.

The State Bank of Insurance gave attention to the solution of this problem, which from the outset it considered to be in harmony with its mission as the chief agent of thrift in the economy and society of Uruguay, and was forced, in forming a basis for insurance of this type, to take different considerations into account. First such insurance should effectively correspond to the ends in view; secondly its tariff should be so low that the payment of the premium does not involve a sacrifice for those paying it; thirdly the terms should be brought into line with the system of granting financial facilities otherwise followed by the bank; and fourthly the delay before premiums are paid should be as short as possible.

In order to understand the insurance of mortgage debts we will take a concrete example.

A married man, twenty-five years old, having limited pecuniary resources, buys a property worth 3,000 pesos (2) but has only 1,500 pesos at

(1) For the organization and operations of the State Bank of Insurance, see our issue for March 1917, page 35.

(2) 1 peso = 4.283 s. at par.

his disposal. He mortgages the property he has bought for the remaining 1,500 pesos, the loan being repayable in thirty years.

During his lifetime he pays the fixed annual instalments punctually, but after six years he dies. In the course of his life he has amortized 130.56 pesos which is to say that at his death he still owes 1369.44 pesos. Can his family still fulfil the obligation of the mortgage, namely make an annual payment of 123.38 pesos for the twenty-four years which have still to run before the obligation is cancelled? There would not be this doubt if the individual in question had guarded against the eventuality of his early death by insuring his mortgage, in the manner which we will explain, at the same time as he mortgaged his property. The Insurance Bank would in this case have issued a policy by which it engaged to pay, to the heir or heirs named therein, a sum equal to that needed by the terms of the mortgage to pay the debt remaining a burden on the property from the time of the mortgager's death until the conclusion of the term of the mortgage.

Further it is an essential condition of the mortgage in question that the obligation assumed by the bank remain valid in spite of any delay of the payments by the mortgager to the mortgagee, and in spite of payments in advance which he may have made or his sale of the mortgaged property. Thus the bank's engagement subsists for the period of thirty years and its effectiveness cannot in any way be lessened within this period. The insurance is therefore essentially a life insurance lasting for thirty years, in virtue of which — in relation to the mortgage which gave it birth — the bank must pay to the heirs of the insured person, if he die within the thirty years and whether or not he has repaid the mortgage debt or sold the property, the amount of the annual payments still pending at the time of his death. In other words if the mortgager die after six years of insurance, as we assumed previously, his heirs receive the sum of 1369.44 pesos even if he have repaid his debt or sold his property.

The costs accompanying this form of insurance are low, as is shown by the tariff which we give below, and they vary with the amount of the debt and the age of the borrower. In the case already cited the mortgager in order to insure his debt would have to pay one premium of 91.76 pesos or the following annual sums :

1st. year	33.63	pesos
2nd. "	26.91	"
3rd. "	20.19	"
4th. "	13.47	"
5th. "	6.75	"

§ 2. TERMS OF INSURANCE.

The following are the principal terms of the policy :

a) This contract is in force from the time of the payment of the single premium or the first of the five annual instalments into which, if the contracting person wish, this single premium can be divided.

If the insured person die before five years have passed from the time at which the contract comes to have force, the bank will deduct, from the amount to be paid, the portion of the premium which still has to be paid before the total sum of the single premium is reached.

b) Only long-term mortgages, constituted in conformity with the by-laws of the Mortgage Bank of Uruguay or other similar organizations, can be the objects of this insurance.

c) If it be discovered at any time that the true age of the insured person is less than his age as declared in the application which was the basis of his policy, and if his true age be more than fifty or the difference between his declared and his true age be more than five years, the insurance will be null and void and the bank will not be obliged to repay the paid premium. The insured person or his heirs must prove his age as often as the bank desire.

d) The policy makes no restrictions as to travelling and place of residence ; but the insured person must not blow up rocks, engage in mining or diving or the manufacture of inflammable or explosive substances, or make aerial ascents without first notifying the bank and obtaining its consent, and causing the bank to establish that the premium shall still be recoverable and the policy remain in force. In default of such declaration, and in the case of an accident due to the causes here cited, the insurance will be null and void, and the insured person or his heirs will be able to claim no part of the amount of premium paid.

e) Military service within the country or for its defence entails no increase of the premium ; but military service for a foreign nation annuls the insurance so that the insured person or his heirs can claim no part of the premium paid.

f) In the case of suicide the insurance is annulled and the bank repays the premium or the annual payments it has received.

g) When the proofs of the death of the insured person have been presented and the bank has accepted them, the bank will, according to circumstances, pay or credit the sum due.

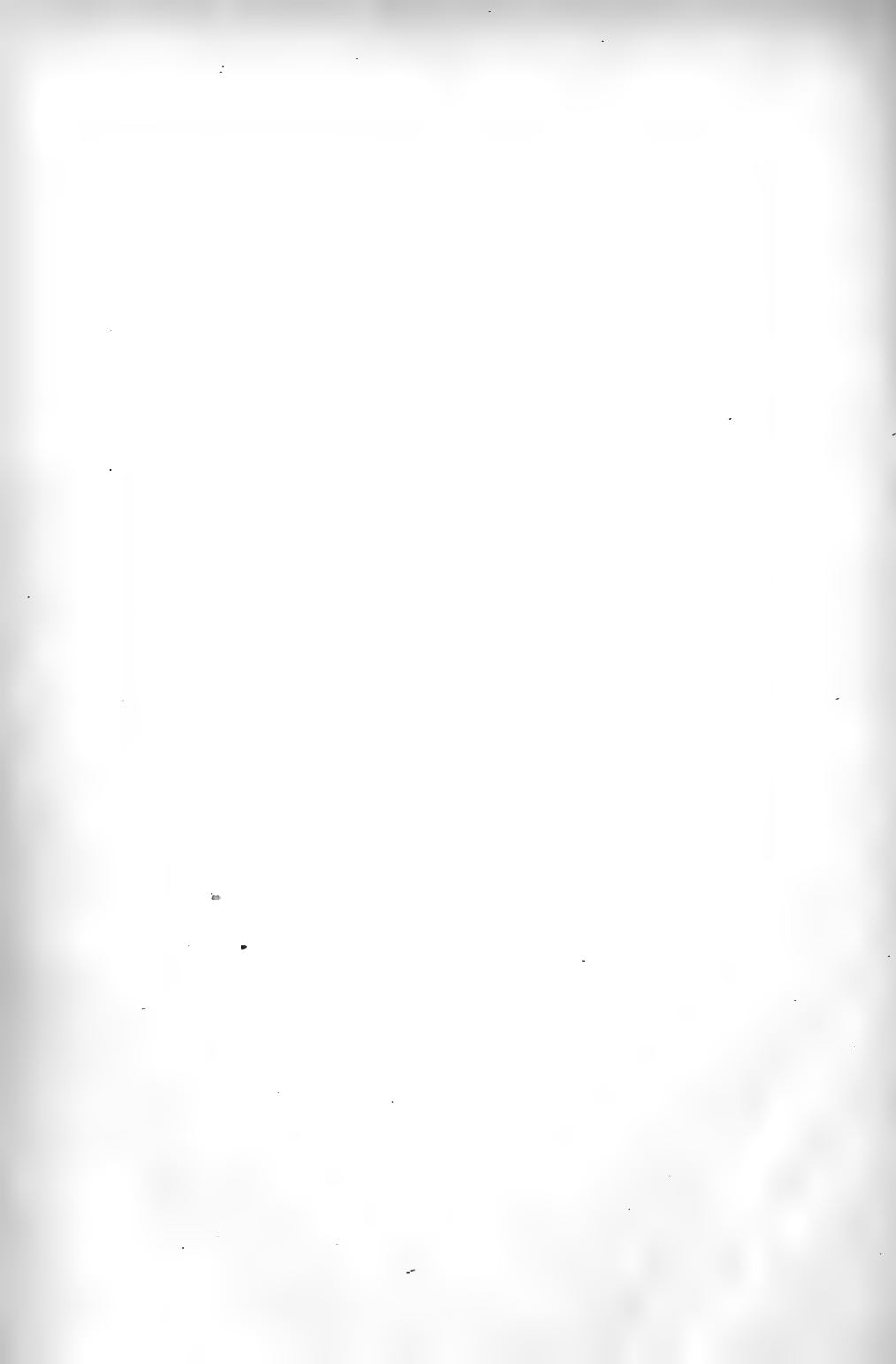
h) The policy will be annulled if the contracting person omit to pay, when it falls due, any one of the annual instalments forming an integral part of the single premium on which the contract is based.

We give below the tariff fixed by the bank for the insurance of mortgage debts :

Amount of the Premium for 1000 pesos insured for 30 years.

Age of debtor years	Single premium in pesos	Premium paid by annual instalments in pesos					
		First	Second	Third	Fourth	Fifth	Total of instalments
25	60.17	22.42	17.94	13.46	8.98	4.50	67.30
26	64.39	23.60	18.88	14.16	9.44	4.72	70.80
27	67.61	24.80	19.80	14.90	9.90	4.97	74.37
28	70.83	25.97	20.78	15.59	10.40	5.21	77.95
29	74.05	27.15	21.72	16.29	10.86	5.43	81.45
30	77.28	28.33	22.64	16.98	11.32	5.69	84.96
31	80.70	29.59	23.64	17.73	11.82	5.95	88.73
32	84.13	30.86	24.64	18.48	12.32	6.20	92.50
33	87.56	32.11	25.68	19.26	12.84	6.42	96.31
34	90.99	33.36	26.68	20.01	13.34	6.68	100.07
35	94.44	34.62	27.68	20.76	13.84	6.94	103.84
36	101.94	37.39	29.88	22.41	14.94	7.49	112.11
37	109.45	40.13	32.08	24.06	16.04	8.05	120.36
38	115.96	42.51	34.00	25.50	17.00	8.51	127.52
39	124.43	45.63	36.48	27.36	18.24	9.15	136.86
40	131.98	48.39	38.68	29.01	19.34	9.71	145.13
41	140.35	51.46	41.16	30.87	20.58	10.30	154.37
42	148.72	54.53	43.60	32.70	21.80	10.93	163.56
43	157.09	57.61	46.04	34.53	23.02	11.55	172.55
44	165.46	60.68	48.52	36.39	24.26	12.14	181.99
45	173.85	63.75	50.91	38.22	25.48	12.78	191.19

From all that has been said it is easy to understand the importance of this form of insurance to the rural population of a colonists' country like Uruguay where mortgage credit plays so large a role.



Part III: Credit

UNITED STATES.

FEDERAL BANKS AND FINANCIAL ORGANIZATION.

OFFICIAL SOURCES:

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- THE FEDERAL FARM LOAN ACT. Approved 17 July 1916. Senate, Document No. 500, 64th Congress, 1st session.
- AN ACT TO AMEND CERTAIN SECTIONS OF THE ACT ENTITLED "FEDERAL RESERVE ACT" APPROVED 23 DECEMBER 1913. Approved 7 September 1916. Public, No. 270, H. R. 13391, 64th Congress.
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- SPRAGUE (O. M. W.) The Federal Reserve Banking System in Operation, *The Quarterly Journal of Economics*, Vol. XXX, No 41, August 1916, Cambridge (Mass) U. S. A.
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- THE JOURNAL OF POLITICAL ECONOMY, Vol. XXIV, No 10., Chicago, December 1916.

Financial and banking organization in the United States, certain defects of which were repeatedly pointed out by financial experts and economists and were thrown into relief by the crisis of 1907, has undergone in recent years a significant transformation.

Recurrent and multiplied attempts, and also numerous failures, pro-

found study and the resultant minute knowledge of the country's real needs and political necessities, seem at last to have led the government of the States to institute a new organization of banking, grafted on the surviving trading organization and aiming at providing remedies for the crises which may eventually threaten the equilibrium of the money market.

The law of 23 December 1913, which created the Federal Reserve Banks, gives its bases to the new system and is modified and amplified by a law of 7 September 1916, which is connected at several points with the law on agricultural credit of 17 July 1916.

The new organization represents, as we shall show in examining its outstanding features, a measured compromise between two political and economic principles — complete centralization and localization — which in turn have left their mark on the law and administration of the North American republic since first it was formed, and which the force of experience and of a union of social forces tend more and more to merge.

In order justly to appreciate the reforms introduced into the monetary and banking system of the States by the Federal Reserve Act, and the possibilities of economic growth which the new system offers to the various States, we must realize the successive stages through which American finance has passed, and — maintaining a balance amongst fluctuating opinions — arrive at the equilibrium established by one or more of the regulating institutions.

§ I. GENERAL VIEW OF THE DEVELOPMENT OF THE FINANCIAL SYSTEM OF THE UNITED STATES.

a) *The Two First Federal Banks.*

After the first confused and precarious years of provisional measures and multifarious difficulty Congress had to consider the national credit's lack of stability. In the revolutionary period three institutions had been founded — the Bank of North America, the Bank of New York in 1781 and the Massachusetts Bank in 1784. Alexander Hamilton, first secretary of the Treasury, considered that they did not suffice and proposed to form a federal bank. In support of his proposal he argued 1) that capital would thus become available because the trust circulation would increase, 2) that the government would be able to borrow more easily, and 3) that the citizens would be able to pay taxes more easily, because they would have less difficulty in procuring credit, which would lead to a larger and more rapid circulation of money. After various discussions Congress finally approved the formation of the proposed bank, and it was constituted in 1791 under the name of Bank of the United States, with a capital of \$10,000,000 of which one fifth was to be subscribed by the government and the rest by the public. The offices were at Philadelphia. This was the first federal bank. It did good service to the government but aroused the opposition of the anti-federalist or republican party which under Jefferson soon rose to power and did not renew the privilege which

had been granted for twenty years. The Bank of the United States therefore went into liquidation in 1811. The interests of the State Banks were not without influence on such outcome. These banks had numbered three in 1790 but in 1800 there were eighteen of them and their capital amounted to \$21,300,000, while in 1811 they were eighty-eight and had a capital of \$42,600,000.

The State funds had therefore again to be entrusted to the local banks. But after the second War of Independence (1812-1814) and during Monroe's presidency Congress submitted to necessity and consented in 1816 to the creation of a second Bank of the United States.* Its capital was fixed at \$35,000,000 which sum limited its circulation. Of this capital the government subscribed \$7,000,000 in specie, and three fourths of the balance — namely \$28,000,000 were subscribed in the funded debt of the State. Five of the twenty-five directors were appointed by the president. The bank was obliged to transfer the public funds of the government from place to place without commission. In return for the privileges granted in the charter the bank was obliged to pay \$1,500,000 in three equal instalments to the United States, and the United States undertook to establish no other bank under federal charter except in the District of Columbia. Congress was given the power to inspect the books of the bank. The new bank like its predecessor encountered political difficulties: in 1836 it failed to secure a renewal of its corporate powers under a federal charter and its interest as a fiscal institution of national importance ceased. A strong political party supported President Jackson in the opposition to the bank which led to its fall. State banks were subsequently carefully selected to hold the funds of the government, stringent conditions being imposed as to securities. But frenzied speculation in land in the Western States led President Van Buren in 1837 to call an extra session of Congress. He reviewed the situation and proposed to establish an independent treasury system through which the government might in the future care for its own funds. The system involved the institution of centres of deposit and sub-treasuries: established at this time, it was afterwards repealed but in 1846 it was definitely adopted. The principal centres of deposit were at New York, Philadelphia, Washington, Charlestown, New Orleans and St. Louis. The chief advantages of the system were that it created a new demand for specie, limited the expansion of bank paper money, avoided the disturbance of business following on government association with banks, prevented losses to the government, and gave to the Treasury a constant control of its funds. These advantages were realized during the panic of 1857, when the national government was able to meet all its liabilities although the State governments were gravely embarrassed.

The system of sub-treasuries is still in force but has been amended to allow surplus funds to be deposited in the National Banks.

b) *The State Banks and the National Banks.*

On 1 January 1862 there were in the United States 1496 banks issuing circulating notes, possessing an aggregate capital of \$420,000,000 and

carrying a circulation of \$184,000,000. "They were established under the laws of twenty-nine different States; they were granted different privileges, subjected to different restrictions, and their circulation was based on a great variety of securities, of different qualities and quantities. In some States the bill-holder was secured by the daily redemption of notes in the principal city; in others by the pledge of State stocks; and in others by coin reserves. There were State banks with branches, independent banks, free banks, banks organized under a general law, and banks with special charters." "In New York", adds Professor Dewey in his *Financial History of the United States*, "there were banks incorporated by special act, individual banks, and banks organized under the free banking law (1); in Louisiana there were chartered banks and free banks; in Ohio independent banks, free banks and a State bank with numerous branches; in Indiana a State bank with branches, and free banks; in Massachusetts banks under special charters and banks organized under a general law. In some States there were boards of bank commissioners who made frequent and thorough examinations, while in others no such boards existed or existed only in name; in a few States the public was informed as to the condition of the banks by the publication of periodical statements, but as a rule publicity was not insisted on".

In only nine of the States did the law require the circulation to be secured by State bonds, and the State securities pledged for the notes were only \$40,000,000, leaving over \$120,000,000 provided for by other assets, sometimes by none. All told, about 7,000 different kinds of notes circulated, to say nothing of about 5,500 varieties of fraudulent notes.

Further the Treasury issued legal tender notes (greenbacks) to the value of several hundred million dollars, guaranteed by the public credit and constituting a forced currency, which greatly lowered the rate of exchange; and several loans were only partially subscribed. Such was the situation with which Salmon Chase found himself faced in 1863. He had to solve two problems — to create an organization which could absorb the loans the government had been forced to issue during the War of Secession and to purify the credit circulation by forming national agencies for the issue of notes. The desired agencies were the National Banks, which were differentiated from the State banks because a federal law allowed their foundation in any territory of the Union, and because they could issue notes, secured by a pledge of United States stock, which were legal tender (2).

(1) The Free Banking Act of 1838 guaranteed the trust circulation and the inspection of banks, and superseded the Safety Banking Act, the drawbacks to which had been revealed in 1837.

(2) "The origin of the national banking system is probably to be found in the germ from which sprang the establishment in 1838 in the State of New York of a set of local banks, having the power to emit a currency secured by the deposit of State bonds. The success of this plan suggested that a uniform national currency might in the same way be provided through the emissions of special associations, which should secure their notes by the pledge of government securities". *The Origin of the National Banking System*. p. 7.

According to the law a banking association upon depositing bonds with the treasurer of the United States could receive circulating notes to the amount of 90 per cent. of the current market value of the bonds deposited — not exceeding however 90 per cent. of the par value. The amount of notes to be issued was originally limited to \$300,000,000, to be apportioned to banks in the different States according to population and existing banking conditions and necessities. The system was to be supervised by a bureau of currency in the Treasury department.

§ 2. THE CAUSES OF THE REFORM OF 1915.

Under the Act of 1900 a national bank could be organized with a capital of \$ 25,000 (1) in a town with a population not exceeding 3,000. Circulation was increased to the full face value of bonds deposited so long as they stood at par or above par. The number of national banks increased from 3,595, in 1899 to 7,301 in 1911. The extension of the national system was especially rapid in the South and West on account of the reduction in the stipulation as to minimum capitalization. State and private banks were converted into national institutions and many new banks were organized, nearly one half of the new organizations having a capital of only \$25,000. The circulation nearly trebled between 1900 and 1911, increasing from \$254,000,000 to \$739,000,000, or by an annual average amount of more than \$40,000,000. The inflation was steady. A further consequence of the extension of the national system was the absorption by national banks of federal bonds. In 1900 these banks owned \$ 245,000,000 of United States bonds; in 1911 they owned \$ 714,000,000 or three fourths of the total interest-bearing debt. Matters standing thus it was evident that any reduction of the federal bonds in circulation would reduce the facilities for credit — a result which might be useful or even necessary but only if commercial conditions were taken into account. The enquiry by the National Monetary Commission, with which we will deal presently, made clear the fact that the mechanism of the national banks does not move simultaneously with the fluctuations of trade. “ In a country now agricultural like the United States ”, says M. Auguste Moireau, “ it is at harvest-time, when corn begins to reach the market, that the need for capital is most apparent. Specie and notes are drained from New York to the interior, rates of interest and discount rise rapidly. In harvest time — the height of the summer — a far larger circulation is needed than in the beginning of spring, owing to the larger sum which must be paid in wages in the former season. A system of issue which does not easily meet the seasonal demands of agriculture and trade renders the country liable to grave economic disturbance. If the circulation be insufficient at the time of harvest the metal reserves of the urban banks are emptied or at least markedly reduced, and their credit capacity is proportionately dimi-

(1) The minimum capital had hitherto been \$50,000.

nished. If on the other hand the circulation be too large in the intermediate period and cannot be automatically absorbed by the issuing establishments, there is a use less accumulation of money in the towns and speculation or the export abroad of gold is encouraged... The organization of the national banks did not allow them to restrict their circulation in periods of stagnation or enlarge it in periods of activity. The absence of this ability to contract and expand gave them the inelasticity for which the system of credit circulation in the United States was so often blamed".

The National Monetary Commission found that since the circulation under this system depended on the amount of the Federal bonds pledged, the following state of affairs is produced: in years of development and intense agricultural and commercial activity, in which paper circulation should increase, public receipts are likewise augmented, and in a country like the United States in which operations are on an enormous scale receipts rapidly come to exceed expenditure. With the available excess the government reduces the debt, that is reduces the amount of the bonds, and this entails a diminution of the circulation which is opposed to what ought to be. In this way between 1883 and 1891 the circulation was lowered by 53 per cent., with especial rapidity in the autumn of 1886 and 1888, the demand for bank notes being emphasized in that season. The danger of this procedure is more apparent if it be remembered that in the same period the demand for money for trade rose by 54 per cent. After 1893 the contrary case appeared. The restriction of business ought to have been reproduced in a contraction of the circulation.

The State's redemption of bonds ceased, owing to the budget's deficit, and a new issue of State bonds was even necessary, so that the circulation was enlarged. Finally the crisis of 1907 proved once more that the mechanism of the National Banks was not adequate to the country's need.

As early as 1906 there had been agitation for the reform of the banking system, essentially with a view to giving the circulation the elasticity it lacked. The Association of American Bankers and the New York Chamber of Commerce elaborated schemes. Making allowance for differences of detail these schemes proposed to grant to the national banks the power to issue bills secured by federal debt bonds, and other bills differently secured, and to abolish all restriction on the withdrawal of issued bills. In 1907 Congress merely raised from \$3,000,000 to \$9,000,000 the amount of the bank notes which could be withdrawn from circulation every month. The crisis of this year showed clearly the urgent need for a change in the financial system. While the question was being examined provisionary measures were taken, pending a complete solution. In 1908 the Vreeland-Aldrich Act provided that when money was tight the National Banks could issue emergency notes up to the value of \$500,000,000. These notes would have only a temporary circulation and could be secured by American government or municipal bonds or commercial paper.

Simultaneously Congress decreed that there should be a National Monetary Commission, charged to examine the financial and banking situation in all its aspects in the United States and in the principal European

countries and to report its conclusions. The results obtained by this commission were first published at the end of 1910 (1). They noted various weaknesses which have been mentioned and favoured a greater centralization of the banking system. The Commission did not however propose the establishment of a single federal bank on the model of the great national banks of Europe, but the creation of a Reserve Association of America which would have the necessary authority and means to increase and reduce the volume of paper money in circulation as circumstances demanded. It was hoped that both the Federalist party and their opponents would approve this expedient.

Congress on 23 December 1913 voted the Act creating the Federal Reserve, in accordance with the principles and the hopes which the commission had enunciated.

§ 3. THE FEDERAL RESERVE ACT.

We will now briefly analyse the law entitled "An Act to provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes".

Section 2 rules that as soon as practicable the secretary of the Treasury, the Secretary of Agriculture and the Comptroller of the Currency, acting as "The Reserve Bank Organization Committee, shall designate not less than eight nor more than twelve cities to be known as Federal reserve cities, and shall divide the continental United States, excluding Alaska, into districts, each district to contain only one of such Federal reserve cities... Such districts may be designated by a number... The said committee shall supervise the organization in each of the cities designated of a Federal reserve bank... Every national banking association in the United States is hereby required, and every eligible bank in the United States and every trust company within the District of Columbia is hereby authorized, to signify in writing, within sixty days after the passage of this Act, its acceptance of the terms and provisions hereof. When the organization committee shall have designated the cities in which Federal reserve banks are to be organized, and fixed the geographical limits of the Federal reserve districts, every national banking association within that district

(1) In 1909 the commission had indeed published a special report on the banks of the United States. Its data concerned 22,491 of some 25,000 banks existing in the States on 28 April 1909. The banks as to which there was no precise information confined their business for the most part to brokerage and exchange.

The capital stock of the 22,491 reporting banks of all classes amounted to \$1,800,036,368 and their resources aggregated \$21,095,054,420.72. Banks to the number of 18,245 submitted supplementary statements, showing deposits aggregating \$13,593,599,850.66 to the credit of 25,645,604 depositors (deposit accounts), including \$5,678,735,379.65 savings and time deposits, with 14,894,696 depositors.

shall be required within thirty days after notice from the organization committee, to subscribe to the capital stock of such Federal reserve bank in a sum equal to six per centum of the paid-up capital stock (1) and surplus of such bank, one sixth of the subscription to be payable on call of the organization committee or of the Federal Reserve Board, one sixth within three months and one sixth within six months thereafter, and the remainder of the subscription or any part thereof shall be subject to call when deemed necessary by the Federal Reserve Board, said payments to be in gold or gold certificates... Any national bank failing to signify its acceptance of the terms of this Act within the sixty days aforesaid shall cease to act as a reserve agent, upon thirty days' notice, to be given within the discretion of the said organization committee or of the Federal Reserve Board. Should any national banking association in the United States now organized fail within one year after the passage of this Act to become a member bank or fail to comply with any of the provisions of this Act applicable thereto, all of the rights, privileges and franchises of such association granted to it under the national bank Act (1863) or under the provisions of this Act shall be thereby forfeited... Should the total subscriptions by banks and the public to the said Federal reserve banks or any one or more of them be, in the judgement of the organization committee, insufficient to provide the amount of capital required therefor, then that committee shall allot to the United States such an amount of said stock as said committee shall determine... No Federal reserve bank shall commence business with a subscribed capital less than \$4,000,000".

Each Federal Reserve Bank is under the supervision and control of a board of nine directors, of whom three represent and are chosen by the stockholding banks, three must when elected be actively engaged in their district in commerce, agriculture or other industrial pursuit, and three are nominated by the Federal Reserve Board. The chairman of the board of directors is chosen by the Federal Reserve Board from the last named three, and also has the office of federal reserve agent, acting as official representative of the Federal Reserve Board for the performance of the functions conferred on it by the Act.

Any bank incorporated by special law of any State, or organized under the general laws of any State or of the United States, may apply for the right to subscribe to the stock of the Federal Reserve Bank organized or to be organized within the Federal Reserve District in which it is situated. If such application be accepted the applicant bank must conform to the regulations as to reserves and capital and inspections which the Organization Committee or the Federal Reserve Board establish. No bank may thus subscribe to the stock of a Federal Reserve bank if it have not unimpaired paid-up capital sufficient to allow it to become a National Bank within its own locality in accordance with the law regulating such banks. When admitted it shall be subject to all laws applicable to National Banks. A dividend up to 6 per cent. on paid-up capital shares may be distrib-

(1) The shares are of \$100.

uted to stockholders out of the net profits of the Federal Reserve Bank. Half the surplus profits shall be paid to the government of the United States and the other shall constitute a special reserve fund. When the latter has reached an amount equal to 40 per cent. of the bank's paid up capital the whole balance will return to the government.

The property of Federal Reserve Banks — including their capital shares, their reserves and all their revenue, is exempt from all taxation of the United States Government or the States or other authority, except the land tax.

When the Organization Committee has accomplished its task it gives place to the Federal Reserve Board which meets in Washington and is the motive power of the whole system. It has seven members, namely the Secretary of the Treasury and the Comptroller of the Currency who are members *ex officio*, and five others appointed to hold office for ten years by the President of the United States with the consent of the Senate. In appointing them the President has due regard to a fair representation of the different commercial, industrial and geographical divisions of the country, and he designates one of them as governor and one as vice-governor of the Federal Reserve Board, the former being the board's active executive officer.

The Act also creates a Federal Advisory Council, consisting of as many members as there are Federal Reserve Districts, each Federal Reserve Bank sending a representative to it. This council meets at least four times a year: it confers directly with the Federal Reserve Board on general business conditions; it makes oral or written representations concerning matters within the jurisdiction of this board; and it calls for information and makes recommendations in regard to discount rates, rediscount business, note issues, reserve conditions in the various districts, the purchase and sale of gold or securities by reserve banks, open market operations by these banks, and the general affairs of the reserve banking system.

Previously National Banks were obliged to have a reserve equal to 25 per cent. of the amount of their deposits in the reserve towns and 15 per cent. in the other towns; but the Act of 1913 made this percentage 18 in New York, Chicago and St. Louis, 15 in other reserve towns, and 12 in non-reserve towns. The excesses of available reserves should be transferred in accordance with certain conditions to the Federal Reserve Bank.

For twenty years from 1915 the member banks of a Federal Reserve Bank may apply to sell all or some of their circulating notes which they desire to retire.

The Federal Reserve Board will decide on such applications. A Federal Reserve Bank may not purchase more than \$25,000,000 of such bonds in a year.

Upon depositing with the Treasurer of the United States bonds so purchased, or any bonds with the circulating privilege acquired under this Act, any Federal Reserve Bank shall receive from the Comptroller of the Currency circulating notes in blank equal in amount to the par value of the deposited bonds. Such notes shall be issued and redeemed on the

same terms and conditions as National Bank notes, except that they shall not be limited to the amount of the capital stock of the Federal Reserve Bank issuing them. Thus the circulation of notes will eventually be appreciably simplified and unified.

The law perfects the machinery for controlling the banks. In addition to the inspections by the Comptroller of the Currency, inspections of any bank by the Federal Reserve Bank of its district can be authorized by the Federal Reserve Board. The Federal Reserve Banks are themselves inspected annually and their member banks can obtain that they be inspected specially.

As regards the special interests of agriculture — every National Bank not situated in a central reserve town may make loans on cultivated, unmortgaged land within its district, for a term of no more than five years, of amounts not exceeding 50 per cent. of the value of the property offered as security. Each of these banks may thus lend as much as 25 per cent. of its capital and reserves or one third of its term deposits and continue as previously to receive term deposits and pay interest on them.

The Federal Reserve Board will have the right to add other towns from time to time to the list of those in which the National Banks may not thus grant loans secured by landed property.

Federal Reserve Banks within the territory of the United States do no business with the public directly but only with each other and with the National Banks. Their deposits emanate only from their stockholders and the government of the United States. By means of the notes they issue they may rediscount the commercial paper of their respective National Banks and discount the notes and acceptances of foreign banks. They may open branches abroad which may transact all normal banking business directly.

Both abroad and at home these banks are the government's fiscal agents, and as such recover taxes and duties, pay arrears of the public debt, etc.

§ 4. THE WORKING OF THE FEDERAL RESERVE BANKS.

As soon as the Act had been passed the organization committee got to work. Its first difficulty was to fix the number of the districts in which there should be banks, for the interests of the different States could not be neglected.

It was decided that there should be twelve districts, and that the banks should have their sites in Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco. The notice provided by the Act was given to the various banks and on 18 May the decree for the organization of the Federal Reserve Banks was drawn up. The banks of each district were then divided into three equal groups, according to the amount of capital and property they held. At the beginning of July 1914 each group in the

various districts elected two directors of a Federal Reserve Bank. This somewhat complicated procedure allows the small banks to be represented on the directors' boards of their respective Federal Reserve Banks.

The election ended the task of the organization Committee and on 10 August the Federal Reserve Board was sworn in. It comprises in addition to its statutory members an expert in foreign banking and investing, a Southern banker, a jurist, an economist, and a railway expert. It had first to nominate the three representatives of the government in the directors' boards of the Federal Reserve Bank. Meanwhile the interior organization of the banks was studied by a technical committee. It was judged well to divide the powers of the boards of directors into two. The chairman, appointed by the Federal Reserve Board from the three official representatives, is this board's intermediary as regards the direction and superintendence of the business of a bank, and the governor — whom the directors appoint from their own number — is the effective president. The directors have been well chosen for their financial capabilities and have greatly ministered to the scheme's development. Each Federal Reserve Bank is largely an independent institution, managed by local persons. Its officials and directors can speak with authority for the different local interests they represent.

The opinions of the governors, supported by their boards of directors and amplified by the Federal Advisory Council, have had much weight in this first period of the activity of the new banking machinery.

In October 1914 the work of organization was far from complete, but in view of the conditions created by the European war it was thought well not to defer the opening of the banks. The opening day was fixed for 16 November and the first payment of capital was made on 1 November. Of the 7,493 National Banks which were active only eighteen refused their subscription. The first contribution was slightly over \$18,000,000; and the aggregate nominal capital was about \$106,800,000, that is slightly less than \$14,000 for each stockholding bank. Succeeding payments were made on 1 February and 1 May 1915. The other half of the subscribed capital stock will probably not be called for so soon. In June 1916 the paid-up capital amounted to \$54,864,000.

In addition the Federal Reserve Banks disposed on the opening day of the part of the reserves of the stockholding banks which was to be transferred to them under the Act. The banks of the central reserve towns thus transferred a sum equal to 7 per cent. of the deposits they held, the banks of reserve towns made a preliminary deposit of 3 per cent. and the others one of 2 per cent. (1). The Federal Reserve Banks also received at one time about \$230,000,000, which with the first payment of capital brought their available funds up to about \$250,000,000. These transferences were made quite easily and conveniently.

(1) The deposits of the two latter were completed on 16 November 1915 and 16 May and 16 November 1916, and their transferred reserves thus came to be 6 and 5 per cent., respectively.

The Act provided that the rediscount of the paper of stockholding banks should in normal times constitute a Federal Bank's chief business. The rate of such discount was first fixed at from $5\frac{1}{2}$ to $6\frac{1}{2}$ per cent., according to the term of the bills. But as the Act had lowered the minimum necessary reserve of the National Banks, these disposed of large sums which they previously could not touch and were therefore able to extend their business without rediscounting their paper. Thus the available reserve of the National Banks of New York rose from \$85,000,000. From being tight money became plentiful; the Reserve Banks had to meet no demand for rediscount except in the three Southern districts; and at the end of 1914 the rate was brought to $4\frac{1}{2}$ and 5 per cent. At this time the whole rediscount business reached the sum of \$10,503,000, of which \$4,027,000 belonged to the Southern districts. The rate of rediscount was lowered to 4 per cent. in 1915; and at the end of this year the whole rediscount business figured as \$32,000,000, of which sum 74 per cent. belonged to the Southern banks. On 17 June 1916 this sum had been reduced to \$20,425,000, \$13,307,000 belonging to the Southern banks. It is however probable that when the abnormal conditions created by the war are at an end, that is when the large facilities for credit offered in consequence of the great influx of gold into the United States are no more, rediscounting by the Federal Reserve Banks will be more important.

The unimportance of this branch of business is not due to the nature of the paper to be discounted. Under the Act the Reserve Banks may only rediscount bills representing loans for commercial purposes; but the adjective is given a large interpretation, for all advances of funds repayable within ninety days, and made by a bank to a borrower whose current assets are in excess of his liabilities, are considered to be commercial loans.

Agricultural paper and bills given for loans on cattle are given a preference in that they may be rediscounted even if their term be six months. A large part of the rediscounting done by the Reserve Banks has concerned paper of this description. Thus on 17 June 1916 63 per cent. of the loans granted by the Bank of Minneapolis were of this kind, as were 36 per cent. of those of the Bank of Dallas and about 23 per cent. of those of the Banks of Kansas City and Chicago.

Rediscounting is naturally active only in districts in which ordinary credit facilities do not suffice. The three Reserve Banks of the South appear consequently likely to be able to employ considerable sums in business of this kind.

The Act supplies another means of investment to the Federal Reserve Banks. They may buy in the open market bonds of the United States, bonds of the various States and municipal bonds at six months, and also bills of exchange arising out of commercial transactions. On 17 June 1916 they held United States bonds for \$59,000,000. Of municipal bonds, which are far less liquid, they then held \$22,300,000 and had at an earlier date held \$40,000,000.

The Act authorizes them to purchase and discount bills of exchange

arising out of home trade, a form of paper which both the legislature and the Federal Reserve Board prefer unhesitatingly to simple bills payable on order, whether these have only one signature or are endorsed by the signatory's bank. But since commercial acceptances of this kind are few in number, business of this kind has hitherto been insignificant. Banking acceptances have on the other hand been most important. The development of these transactions is due above all to the rapidity with which the Federal Reserve Banks have bought such acceptances at a moderate rate. In February 1915 the rate oscillated from 2 to 4 per cent. but most purchases were made at $2\frac{1}{4}$ and $2\frac{3}{4}$ per cent. They comprise a large quantity of foreign paper for which the normal market is London. At the date mentioned their total amount was \$64,953,000. All the Reserve Banks except that at Dallas had part in them; but they were chiefly undertaken by the banks of New York, Philadelphia and Boston.

On 10 November 1916 the liabilities of the Federal Banks amounted to \$650,000,000, represented as to one tenth by the paid-up capital stock and as to nine tenths by the deposits of stockholding banks. Their own bills have hitherto circulated little, circumstances not rendering them necessities. Their assets amounted to \$400,000,000 in gold, \$110,000,000 in paper, a certain quantity of their bills, and accounts with neighbouring banks.

The unification which the federal reserve system was designed to effect was shown first by the adoption of a method of weekly settlements of accounts among the various federal banks, the difference between the debit and credit sides of such accounts being rectified by a remittance of specie or bills. The displacement of assets from one district to another is thus reduced to the minimum. In the second place since 15 June 1916 the recovery without charge of cheques and bills has been enforced by the Federal Reserve Board. Every stockholding bank now sends to its Reserve Bank its cheques and bills on other stockholding banks — who are bound to pay them without deduction — and also on other banks which have accepted this condition. The number of the establishments outside the sphere of the Reserve Banks which already practised this method was very considerable. This system may be considered to be almost general. A commission which strictly covers the costs is charged on each transaction. The procedure is expected to strengthen the banking machinery of the whole country, and to place it in this particular under the control of the Federal Reserve Banks.

The attraction of the new financial organization seems not yet to have been fully felt by the State and other banks, of which only some have become stock holders of the Reserve Banks, either transforming themselves into National Banks or keeping their particular charters.

It should be mentioned that most of the Federal Reserve Banks in their first year of activity did not succeed in realizing sufficient profits to cover their costs and distribute the anticipated dividend of 6 per cent.; but these initial difficulties are disappearing.

§ 5. MODIFICATIONS UNDER THE ACT OF 1916.

On the seventh of last December Congress passed an Act modifying that of 1916 in several respects with a view to amplifying its scope.

Certain of these modifications were proposed by the Federal Reserve Board in its last report.

The innovations aimed at making the federal reserve system more attractive, that is to say more profitable, to the stockholding banks, and at extending the scope and usefulness of the Federal Reserve Banks.

In abolishing restrictions on the acceptance by stockholding banks of bills of exchange of home origin which are sufficiently guaranteed the Act has placed within their reach a considerable source of profit, and has at the same time provided a new means of credit to the agricultural, industrial and commercial world; for notes, drafts and bills of exchange secured by agricultural products and other goods and merchandise can be thus discounted. Agricultural paper maturing in six months at most may be discounted up to an amount equivalent to a percentage of the Federal Bank's assets determined by the Federal Reserve Board.

Banks in districts having no more than 5,000 inhabitants are authorized to act as agents of insurance companies and agents for transactions of land credit, and are thus enabled to undertake two kinds of lucrative business.

As regards land credit, the article of the earlier Act to which we have referred is modified as follows: "Any national banking association not situated in a central reserve city may make loans secured by improved and unencumbered farm land situated within its Federal reserve district or within a radius of one hundred miles of the place in which such bank is located, irrespective of district lines, and may also make loans secured by improved and unencumbered real estate within one hundred miles of the place in which such bank is located, irrespective of district lines; but no loan made upon the security of such farm land shall be made for a longer time than five years, and no loan made upon the security of such real estate as distinguished from farm land shall be made for a longer time than one year, nor shall the amount of any such loan, whether upon such farm land or upon such real estate, exceed fifty per centum of the actual value of the property offered as security. Any such bank may make such loans, whether secured by such farm land or such real estate, in an aggregate sum equal to twenty-five per centum of its capital and surplus or to one third of its time deposits and such banks may continue hereafter as heretofore to receive time deposits and to pay interest on the same".

The Act increases the power of the Federal Reserve Banks in that it allows the Federal Reserve Board to authorize "member banks to carry in the Federal reserve banks of their respective districts any portion of the reserves" previously required to be held in their own vaults; and in that it increases the facilities of member banks for short term credit, secured by bills not actually discounted. Any national banking association

may apply to the Federal Reserve Board for permission "to establish branches in foreign countries or dependencies or insular possessions of the United States for the furtherance of the foreign commerce of the United States and to act if required to do so as fiscal agents of the United States".

Owing to the initial deposit of the reserves of member banks and the transfer allowed by this Act the Federal Banks now hold about a quarter of the country's grand stock of gold.

* * *

Such is in outline the financial and banking system instituted in 1913 and revised in 1916. It is seen to have involved no radical upheaval of the previous organization. It merely added some new wheels which centralized, and in some respects gave a new direction to, the complex and somewhat unequal mechanism constructed since the beginning of the republic. The State Banks, the National Banks, the sub-treasuries, the circulation emanating from banks in direct contact with the people and secured by Federal debt bonds, were not abolished. They subsist. But the concentration of a considerable part of the national gold reserves in a small number of Federal banks, which could issue Federal notes in case of need, makes incontestably a regularizing force in the money market, and will probably ensure the normal course of commercial and banking operations in times of crisis.

This centralizing tendency is equally applied to agriculture by the Act of 17 July 1916 on agricultural credit. Under this Act also the territory is divided into twelve districts, in this case in accordance with the needs of the different districts for agricultural credit. A Federal land bank is instituted in each of these districts and may open branches within their respective limits. The Federal land banks are individually ruled by administrative boards and collectively by a Federal board of agricultural credit. The minimum subscribed capital — \$4,000,000 in the case of Federal Reserve Banks — is \$750,000 in the case of Federal banks of agricultural credit; and as the former receive it from the National Banks so do the latter receive it from national associations of agricultural credit, the government of the United States supplying any deficiency in the case of both. Banks of both categories act as fiscal agents of the government and receive deposits of public funds.

Every Federal Reserve bank can buy and sell land bonds issued in accordance with the agricultural credit Act, exactly as they can undertake analogous operations involving district, county and municipal bonds.

Federal land banks are inspected according to the rules applicable to National and to Federal Reserve Banks.

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES.

CANADA.

THE APPLICATION OF THE AGRICULTURAL ACT IN BRITISH COLUMBIA. — The Hon. Wm. Manson, superintendent of the Agricultural Credit Commission of British Columbia in *The Agricultural Journal*, Victoria (British Columbia), Vol. I. No. 9, November 1916.

The Agricultural Act was placed upon the Statute Book of British Columbia in March 1915. It authorizes the borrowing of \$15,000,000 to be administered by a Commission, the debentures of this Commission being guaranteed by the government of the province.

The money market has been unfavourable to borrowing money for some time before and since the outbreak of the war, but last spring a loan of \$1,000,000 was obtained under the Act to begin the work and give definite aid in developing agriculture. The money cost 5.63 per cent. and is being lent to the farmers at 6 $\frac{1}{2}$ per cent.

Long term loans for twenty, thirty and thirty-six and a half years may be made on the amortization plan, interest and principal being payable half-yearly.

Short term loans for from three to ten years need not be amortizable. The Commission has decided that, while it prefers all such loans to be amortizable, it will yet for the present grant straight loans for three, four or five years, the interest on which will be payable half-yearly; and that loans for from six to ten years must, like the long term loans, be payable on the instalment plan, the interest and principal being payable half-yearly.

Borrowers may from time to time, on any date at which interest is due, pay off \$25 or any multiple of \$25 in addition to the regular half-yearly payments,

The Act requires that money lent for the improvement of agricultural land be advanced only as such improvements are made, and the Commission is arranging accordingly in granting each loan.

A great many applications are being received for money to pay off existing mortgages. In view of the limited amount of money at its dispo-

sal it is the policy of the Commission to give first consideration to applications for money to be used towards the definite increase of agricultural production. The applications for money to be used exclusively to pay off mortgages are therefore being held abeyant for the time being.

As the system is still new in British Columbia statistical information is limited, but the following figures may be of interest.

	Number	Average Amount	Total Amount
Applications received to date . .	104	\$ 1,554	\$ 2,175,443
» appraised » » . .	464	» 2,324	» 1,078,606
Loans granted » » . .	144	» 1,628	» 234,430
Applications withdrawn » » . .	7	» 2,368	» 16,575
» refused » » . .	142	» 2,425	» 344,405
» held over » » . .	—	—	—
(for money to pay off existing mortgages).	121	» 3,078	» 372,450

Loans Granted.

5 of	\$ 250 =	\$ 1,250
2 »	300 =	600
21 »	500 =	10,500
2 »	600 =	1,200
3 »	750 =	2,250
2 »	800 =	1,600
2 »	850 =	1,700
26 »	1,000 =	26,000
4 »	1,200 =	4,800
12 »	1,250 =	15,000
1 »	1,300 =	1,300
16 »	1,500 =	24,000
4 »	1,800 =	7,200
16 »	2,000 =	32,000
1 »	2,280 =	2,280
8 »	2,500 =	20,000
4 »	3,000 =	12,000
2 »	3,500 =	7,000
4 »	4,000 =	16,000
1 »	4,250 =	4,250
6 »	5,000 =	30,000
1 »	5,500 =	5,500
1 »	8,000 =	8,000

144

\$ 234,430

The terms for which loans have been granted are as follows:

3 years, straight loans	3
5 " " " "	28
7 " amortizable " "	1
8 " " " "	3
9 " " " "	1
10 " " " "	42
20 " " " "	32
30 " " " "	14
36 1/2 " " " "	20
Total	144

Appraisal Fees.

\$ 500 or under	\$ 2.50
Over \$ 500 up to \$ 1,250.	5.00
" \$ 1,250 " " \$ 2,500.	7.50
" \$ 2,500 " " \$ 10,000.	10.00

Legal Fees.

Up to \$ 2,500	\$ 5.00
Over \$ 2,500 up to \$ 3,750.	7.50
" \$ 3,750 " " \$ 5,000.	10.00
" \$ 5,000 " " \$ 7,500.	15.00
" \$ 7,500 " " \$ 10,000.	20.00

Half yearly repayments on loans are as follows, interest and principal being included :

On \$ 1,000 for 3 years	\$ 186.00
" " " 4 "	145.00
" " " 5 "	119.00
" " " 6 "	102.00
" " " 7 "	90.25
" " " 8 "	81.25
" " " 9 "	74.25
" " " 10 "	69.00
" " " 20 "	45.00
" " " 30 "	38.25
" " " 36 1/2 "	36.00

The Commission was employing last November five appraisers in different parts of the province and every effort was being made to complete the work of appraising before the winter weather set in.

Two of the directors of the board have spent a considerable time in the field with the appraisers, in order to obtain first-hand information as to agricultural land and conditions throughout the province and to help them to establish a proper basis of valuation.

The reports of the appraisers are received at the head office weekly, and as they come in the Commission decides on the applications.

EGYPT.

THE OPERATIONS OF THE LAND BANK OF EGYPT IN 1916. — From the reports of the board of directors and of the auditors for 1915-1916. Alexandria, *Société de publications égyptiennes* 1916.

The improvement in financial conditions apparent in Egypt as early as the autumn of 1915 persisted throughout 1915-1916, important supplementary resources, determined by the European conflict, compensating partially for the deficit due to the insufficiency of the cotton harvest.

This general situation influenced the business of the Land Bank of Egypt in the year which closed on 30 September 1916.

Mortgage business, which had been arrested since the beginning of the war, consisted principally in transactions tending to consolidate and regularize certain old loans. However towards the end of the year the bank thought it right to resume on a very modest and prudent scale the examination of certain business which presented particularly advantageous conditions in the matter of security. The total sum of the mortgage loans in being on the date mentioned was 91,643,830 francs (1). Since the Land Bank was founded it has concluded 2,552 amortizable loans and 99 sales of real estate, also amortizable, for the total sum of 195,723,088 francs. Only 26 of these loans were made last year, their total sum being 15,978,528 francs, to which a current mortgage account of 77,770 francs must be added.

Advances for short terms made last year to borrowers on mortgages, who applied for them for the needs of their holdings, such loans being within the limits of the returns from the land cultivated, amounted to 476,332 francs.

Although receipts in coin were far larger than in the preceding year, the restrictions of credit which circumstances imposed on the fellah, and the necessity of meeting none the less, with a defective production, agricultural costs increased by costliness of primary materials, increased arrears which passed from 10,486,893 francs on 30 September 1915 to 11,621,890 francs on 30 September 1916.

(1) 1 franc = $9\frac{3}{8}$ d at par.

The liquidation of real estate forming the bank's property was, like annual payments, affected by events. This property comprised when the preceding banking-year ended about 2,842 feddans (1) and 31,980 square pikes (2) of building land (two urban real estate holdings and fifty-three rural holdings), representing altogether a credit of 3,757,116 francs. Last year new expropriations added to this property forty-nine rural and one urban real estate holdings, representing a credit of 3,154,535 francs. When the amount covered by the sales (twenty entire holdings, eleven parts of holdings and one urban holding), 1,527,861 francs, had been deducted there remained on 30 September 1916 two urban and 82 rural holdings having a total area of 3,813 feddans and 132,136 square pikes and representing a credit of 5,383,790 francs. The administration resulted in a total profit of 1,820,768 francs.

The following tables show the nature and the terms of the loans granted :

Classification of Current Loans according to the Nature of the Security
(30 september 1916).

Nature of loan	Number	Capital still due
		Egyptian pounds (1)
Rural loans	1,678	3,393,536
Urban "	47	110,616
Mixed "	4	31,008
Total	1,729	3,535,160

(1) Egyptian pound = £ 1.828.

Thus according to these figures the rural loans represent about 97 per cent. of the total amount of the mortgage loans of the Land Bank.

Classification of Amortizable Loans according to their term.

Term	Number of loans	Capital still due
		Egyptian pounds
Less than 10 years	92	77,917.797
from 10 to 20 "	983	982,515.012
from 21 to 30 "	608	1,386,640.147
from 31 to 40 "	16	592,130.294
from 41 to 50 "	1	359,244.493
Total	1,700	3,398,447.743

The average term of the loans is twenty-three years and two months.

(1) 1 feddan = 1.79374 acres.

(2) 1 square pike = 1.67153 square yards.

UNITED STATES.

I. DETERMINATION OF FEDERAL LAND BANK DISTRICTS.

On 27 December 1916 the Federal Farm Loan Board, created under the Federal Farm Loan Act, announced its determinations as to the States to be included in each of the twelve Federal Land Bank Districts provided by the Act, and the town chosen as the site of the Land Bank in each district. The following list shows these conclusions.

District No. 1. — Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York and New Jersey. The bank to be at Springfield, Massachusetts.

District No 2. — Pennsylvania, Delaware, Maryland, Virginia, West Virginia and district of Columbia. The bank to be at Baltimore, Maryland.

District No. 3. — North and South Carolina, Georgia and Florida. The bank to be at Columbia, South Carolina.

District No 4. — Ohio, Indiana, Kentucky and Tennessee. The bank to be at Louisville, Kentucky.

District No 5. — Alabama, Mississippi and Louisiana. The bank to be at New Orleans, Louisiana.

District No 6. — Illinois, Missouri and Arkansas. The bank to be at St. Louis, Missouri.

District No 7. — Michigan, Wisconsin, Minnesota and North Dakota. The bank to be at St. Paul, Minnesota.

District No 8. — Iowa, Nebraska, South Dakota and Wyoming. The bank to be at Omaha, Nebraska.

District No 9. — Oklahoma, Kansas, Colorado and New Mexico. The bank to be at Wichita, Kansas.

District No 10. — Texas. The bank to be at Houston, Texas.

District No 11. — California, Nevada, Utah and Arizona. The bank to be at Berkeley, California.

District No 12. — Washington, Oregon, Montana and Idaho. The bank to be at Spokane, Washington.

To this list the board added the following statement :

“ In determining the Federal Land Bank Districts, and in designating the cities within such districts where Federal Land Banks shall be located, the Federal Farm Loan Board has given careful consideration to the farm loan needs of the country. The board held public hearings in nearly every State in the Union, and in this manner collected information of great value in determining its decision.

“ Every reasonable opportunity has been afforded applicant cities to furnish evidence to support their claim as locations of Federal Land Banks. More than seventy-five cities applied to be designated as the head quarters of a bank and were heard through representative committees and individuals ”.

Officials of the Farm Loan Boards announce that before the end of 1916 more than 50,000 farmers had applied for mortgage loans, of which the approximate aggregate amount was \$ 150,000,000 or more than seventeen times the sum which would be immediately available for loans when the twelve farm loan banks were organized.

Most of the applications came from the south and west, 2,000 of them from Iowa alone.

It was expected that almost immediately after their organization the banks would find it necessary to issue bonds virtually for their entire capital stock, in order to meet the demands of borrowers.

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2. THE SUBSCRIPTION OF THE CAPITAL OF THE FEDERAL LAND BANKS. —
The Economic World, New York, 10 March 1917.

In accordance with the terms of the Federal Farm Loan Act subscription books were opened to the public to the capital stock of the Federal Land Banks, which are to represent in the new Federal Farm Loan System that for which the Federal Reserve Banks stand in the Federal Reserve System. The fact that the banks were unlikely to pay any dividends on this stock during the first year and that it will ultimately be retired at par naturally made it unattractive to investors. Subscription in none of the twelve districts nearly reached \$750,000, the minimum issue of capital stock of each bank under the terms of the Act.

The total sum subscribed was only \$120,095, distributed as follows: Springfield, Mass., \$ 10,275; Baltimore, Md., \$9,780; Columbia, S. C., \$410; Louisville, Ky., \$7,735; New Orleans, La., \$4,570; St. Louis, Mo., \$7,925; St. Paul, Minn., \$5,360; Omaha, Neb., \$41,735; Wichita, Kan., \$6,335; Houston, Tex., \$14,715; Berkeley, Cal., \$6,110; Spokane, Wash., \$5,145.

The Treasury Department has therefore been obliged to subscribe no less than \$8,879,905 of the capital stock of the twelve Land Banks. It is of course expected that the stock now subscribed for will be gradually retired, through the operation of the provision of the Act which requires the Farm Loan Associations — that is in the last resort the borrowing farmers themselves — to subscribe for stock of the banks to the extent of 5 per cent. of the amount they apply for as loans.

The fact that legislation is now pending which will make farm loan bonds legal investments for trust funds and the funds of savings banks and insurance companies in most States in which they are not such already, should insure for them a ready market at a satisfactory rate of interest.

Part IV: Agricultural Economy in General

GERMANY.

THE SUBDIVISION OF LAND IN OLD BAVARIA.

OFFICIAL SOURCE :

BEITRÄGE ZU STATISTIK DES KÖNIGREICHES BAYERN. Landwirtschaftliche Betriebsstatistik Bd. 51, 64, 81. Güterzertrümmerungen Bd. 59. Anhang 66 (*Contributions to the Statistics of the Kingdom of Bavaria. The Statistics of Farms, The Subdivision of Lands*).

OTHER SOURCES :

RABEL (Dr. B.) Landwirtschaftliche Besitzverteilung und Besitzverschiebung in Altbayern (*The Distribution and Conveyance of Farms in old Bavaria*) Leipzig, 1915.

STECHLE (Dr. F.) : Die Güterzertrümmerung und landwirtschaftliche Zwangsversteuerungen in Bayern (*The Distribution of Lands and Forced Transference of Landed Property in Bavaria*) Annalen des Deutschen Reichs, Nos. 10-12, 1915.

The name " Old Bavaria " is given to the three Bavarian provinces of Oberbayern, Niederbayern and Oberpfalz, of which the area and population are as follows :

	Area in Hectares (1)	Number of Inhabitants
Oberbayern	1,704,653	1,434,792
Niederbayern	1,076,756	702,450
Oberpfalz	966,476	577,912
	<hr/> 3,747,885	<hr/> 2,715,154

Agriculture employs the greater part of the population namely :

in Oberbayern	62.7	per cent.
" Niederbayern	65.6	" "
" Oberpfalz	59.7	" "

(1) 1 hectare = 2.47 acres.

The cultivated area measured in 1910 2,119,677 hectares, when there were 248,054 farms, which is to say that the average area of a farm was 8.5 hectares.

Most farms measure from two to twenty hectares, and farms of this size occupy the largest part of the cultivated area, as follows :

	Percentage of Number of Farms	Percentage of Cultivated Area
Oberbayern	62.9	51.6
Niederbayern	62.7	56.2
Oberpfalz	64.8	62

The group occupying the second largest part of the cultivated area is that of the farms of from twenty to a hundred hectares :

	Percentage of Number of Farms	Percentage of Cultivated Area
Oberbayern	13.1	45
Niederbayern	10.5	40.7
Oberpfalz	8.9	33.3

Farms of less than two or more than a hundred hectares cover an insignificant area, but the number of those measuring less than two hectares is very large.

	Percentage of Number of Farms		Percentage of Cultivated Area	
	Less than 2 hectares	More than 200 hectares	Less than 2 hectares	More than 200 hectares
Oberbayern	23.7	0.3	1.8	1.6
Niederbayern	26.6	0.2	2.7	1.3
Oberpfalz	26.1	0.2	2.7	2

From 1882 to 1907 there were very important changes in the various groups as regards the cultivated area, the number of farms and these percentages. The number of the farms and the cultivated area at these two dates were as follows :

	1882		1907	
	Number of Farms	Area in Hectares	Number of Farms	Area in Hectares
Oberbayern	98,296	913,116	92,243	904,227
Niederbayern	83,891	687,131	82,520	680,218
Oberpfalz	65,867	519,380	64,071	494,929

As is seen from this table both the number of farms and the cultivated area were diminishing, doubtless as a result of the development of industry.

In the same period the percentage of farms having an area of from two to twenty hectares changed as follows :

	1882 Percentage		1907 Percentage	
	Farms	Area	Farms	Area
Oberbayern	58.2	49.8	62.9	51.6
Niederbayern	57.1	52.1	62.7	56.2
Oberpfalz	59.0	55.8	64.8	62.0

This is to say that the percentage formed both by the number of these farms and by their area had increased, while these percentages concerned with farms of less than two and of more than twenty acres had decreased, as is seen from the following table :

	1882 Percentage		1907 Percentage	
	Number of Farms	Area	Number of Farms	Area
Farms of more than 20 hectares				
Oberbayern	13.2	48.1	13.4	46.6
Niederbayern	11.2	44.8	10.7	41.1
Oberpfalz	10.1	40.8	9.1	35.3
Farms of less than 2 hectares				
Oberbayern	28.6	2.1	23.7	1.8
Niederbayern	31.7	3.1	26.6	2.7
Oberpfalz	30.9	3.4	26.1	2.7

The average extent has remained almost unchanged, as follows :

	1882 Percentage	1907 Percentage
Oberbayern	9.3	9.8
Niederbayern	8.2	8.2
Oberpfalz	7.9	7.7

The official statistics give us no data as to landed property. With respect to it particular statistics, concerned only with isolated districts, must be consulted. From these we can deduce :

1) That the farms having an area of from two to a hundred hectares are cultivated by their owners, those held and cultivated by lessees representing only from 1.7 to 3 per cent. of the cultivated area.

2) That this percentage is slightly higher in the cases of farms of less than two and more than a hundred hectares. From about 15 to 20 per cent. of the total area of these groups is cultivated by lessees.

The extent of the farms has been influenced by :

1) the system of hereditary succession ;

2) the sale of property in parcels which produces excessive subdivision (*Güterzertrümmerung*).

In all old Bavaria the system of single succession is in force. Landed property is inherited by a single heir, the other heirs being paid the price of their shares. This system has a feudal origin and has been preserved by the conservative spirit of the agriculturists who have remained faithful to ancient customs.

Landed property is generally, or at least oftenest, inherited by the youngest heir, for reasons both economic and social. It is the custom for children when they marry to leave the paternal home in order to settle on their own farms. A farmer generally marries when he is between twenty and twenty-five years old; and when his children marry in their turn he is still able to cultivate his farm without them.

The price which the heirs receive as their share is always a little less than it would be if the land were sold freely. The price of buying back the shares is none the less very high, so that the net profit yielded by the farm is brought into with difficulty up to 2 or 3 per cent.

Besides paying the shares of his brothers and sisters the heir of the land has to maintain his parents. The conditions of this maintenance are fixed by a contract in which the quantity and quality of the objects agreed upon are minutely specified. The stipulation that the value of the maintenance be paid in cash is very rare.

This system of succession prevents the formation of too minute holdings, but it leaves the holdings burdened with debts; and the eventual result of this is that there is after all subdivision. In other words holdings are sold in parcels.

These sales are made:

a) By the owner who retains his dwelling-house and the appurtenant lands and divides his remaining land into parcels which he sells separately.

b) By the medium of a speculator in land who buys the whole holding and divides it into lots which he sells on his own account.

Such division has attained to enormous proportions of recent years, as is seen from the following table:

	Properties sold in lots		
	Number	Area	
1901-1902	425	8,411.77	hectares
1902-1903	425	8,824.85	"
1903-1904	519	11,049.23	"
1904-1905	589	11,500.44	"
1905-1906	709	14,019.19	"
1906-1907	759	14,911.55	"
1907-1908	802	16,035.42	"
1908-1909	802	14,461.64	"
1909-1910	810	12,914.68	"

In 1903 a commission was nominated to investigate the causes of this phenomenon and its consequences. The commission's report states that :

I. The following are the causes of the excessive subdivision :

1. The debt burdening landed property, owing to the system of succession and that of subdividing the lands, that is to say to the high price which the farmer pays for the parcels he buys.

2. The insufficiency of labour which makes the costs of agriculture heavy, especially in the case of the larger farms having an area of more than twenty hectares.

3. The speculation of those who increase their profits by subdividing the lands.

II. The following are the consequences of the excessive subdivision :

1. The wasting of woods, for speculators in land cut down the woods on a holding before they sell it in parcels.

2. The withdrawal from agriculture of the circulating capital represented by the profits of speculators which attained to nearly four and a half million pounds in the period between 1892 and 1904.

These consequences of subdivision, so detrimental to agriculture, induced the Bavarian government to take measures to prevent or at least to impede its progress. The first of these measures dates from about 1850 when a law forbidding subdivision by speculators was promulgated. It was however only in force for some years, being repealed about 1860, between which date and 1894 subdivision was again unhampered.

The measures taken by the government in 1894 and 1899 allow subdivision but regulate it. Special laws forbid the sale of immature woods and make the speculator liable for arrears of taxes with which the subdivided lands may be burdened.

The commission in 1903 was instructed not only to examine the causes and consequences of subdivision but also to answer the two following questions :

1. Would it be opportune to forbid subdivision by decree, as was done in Wurtemberg ?

2. Would it be opportune to offer special privileges to rural banks as inducements to them to substitute themselves for speculators in land ?

The commission in its report answered the first question in the negative, the second in the affirmative.

On the basis of this report the law on the subdivision of lands was promulgated on 13 August 1910. Its most important provisions are contained in its first and second articles.

The first article establishes a right of pre-emption in favour of :

a) Rural banks of the district.

b) Credit institutions authorized to such end by the Minister of Agriculture (the co-operative agricultural unions having their headquarters at Munich and Regensburg have also been thus authorized).

c) The respective communes.

In order that this right of pre-emption may be valid it must be declared within twenty-one days.

The second article gives a right to withdraw :

- a) to the farmer who sells his land to a speculator, within seven days ;
- b) to farmers buying parcels of land from speculators, within five days.

The official statistics give us the following data as to the subdivision of land from 1 March 1911 to the end of 1912 :

	Number — of subdivided properties	Area — of subdivided properties	
1911	295	4,861.36	hectares
1912	453	5,184.97	"

If these data be compared with those for preceding years the law will be seen to have lessened subdivision.

The following figures show the participation of rural banks in these transactions from 1905 to 1912 :

	Number — of subdivided properties	Area — of subdivided properties	
1905-1906	25	361.70	hectares
1906-1907	25	417.47	"
1907-1908	27	312.92	"
1908-1909	26	344.22	"
1909-1910	33	430.99	"
1910-1911 (1)	51	953.58	"
1911 (2)	74	1,652.96	"
1912	106	1,577.87	"

As is seen from this table the participation of rural banks has noticeably increased since the law of 13 August 1910 has been enforced, while that of speculators has diminished. The following figures show the part played by speculators in the aggregate subdivision accomplished in 1912.

Oberbayern	24.2	per cent.
Niederbayern	46.2	" "
Oberpfalz	49.1	" "

(1) Up to 1 March.

(2) From 1 March.

In spite of the favourable results obtained in 1911 and 1912 those who understand the question do not anticipate that the rural banks will completely supersede the speculators. Subdivision does not entirely square with the business of rural banks. It is a transaction which needs large capital and time for its conclusion ; and it is moreover an entirely commercial transaction which cannot be free from a speculative element. Therefore it is somewhat outside the scope of the rural banks ; and the foundation of special institutions which will undertake it has been proposed.

AUSTRIA.

SOME AGRICULTURAL PROBLEMS IN DALMATIA.

OFFICIAL SOURCE.

OESTERREICHISCHES JAHRBUCH FÜR 1912 (*Austrian Yearbook for 1912*), Vienna 1912.

OTHER SOURCES :

GRUBISIČ (A.) : Agrarne operazije kas sredstvo za podigunce ekonomičnik okolnosti Dalmacije (*Agricultural Operations as a means of promoting Economic Progress in Dalmatia*), Pola, 1911.

VINSKA KRIZA. IZVEŠĆE O ANKELI (*The Crisis in Wine Production. Reports of the Enquiry*) Spalato, 1909.

LEITHE (DR. H.) : Dalmatinische Agrarprobleme (*Dalmatian Agrarian Problems*), Wřena, 1912.

§ I. AGRICULTURAL AREA AND IMPROVEMENTS.

Dalmatia is pre-eminently an agricultural country. According to the available statistics it had, in 1911, 642,810 inhabitants of whom 518,790 or 86 per cent. belonged to the agricultural class. Nevertheless Dalmatia exports no agricultural products, but in fact imports a large quantity of them. In 1912 it imported :

240,500 crowns' (1)	worth	of cereals
797,300	"	" fruit and vegetables
293,200	"	" animal products.

The values of the merchandise of these respective categories exported were 69,400, 133,100 and 81,900 crowns. Only with respect to live stock did the value of exports — 674,000 crowns — exceed that of imports — 26,800 crowns. Thus the case of Dalmatia is the singular one of an agricultural country which has an agricultural production inadequate to its own needs. It is worth while to seek the causes of this phenomenon.

(1) 1 crown of gold = $10 \frac{1}{12}$ d. at par.

Dalmatia has an area of 1,283,000 hectares (2) distributed as follows :

Arable land	137,238	hectares
Vineyards	81,853	"
Olive plantations	31,992	"
Gardens	37,024	"
Prairie-land	10,492	"
Pasturage	562,900	"
Woods	329,627	"
Marshy lands	63,383	"
Roads, water-courses, buildings, etc.	29,000	"

The terms pasturage and woods need explanation. The official statistics include as woods all lands once wooded, even in a somewhat remote past and even if to-day they are bare save for occasional shrubs and bushes. The name pasturage is applied even to lands on which grass grows sparsely for three or four months of the year while for eight or nine months they are completely bare.

The table we have given shows that 22 per cent. of the whole area is cultivated while 78 per cent. is formed of uncultivated land.

With respect to the soil's natural fertility the total area of Dalmatia can be divided into land of three categories :

1. The land of the first category has an area of from 180,000 to 200,000 hectares. It comprises the so-called " polja " strips of land lying along the shores and the banks of the water-courses. This land is exceptionally fertile.

2. The second category includes all the woodland and most of the pastureland and may be considered to have a minimum fertility.

3. Between these two extremes is a third category, that of the marshy lands and the mountain slopes. In point of natural fertility these lands approximate to those of the first category. But before they can be brought under cultivation preliminary measures are necessary — the draining of the marshy lands and the reforestation of the mountain lands. Without these improvements these lands approximate rather to those of the second category, remaining lands of minimum fertility.

The facts stated point to the first agricultural problem which has to be solved in Dalmatia, that namely of extending the cultivated area. For this improvements of two kinds are needed — works of drainage and of reforestation.

§ 2. THE DISTRIBUTION OF LANDED PROPERTY.

With respect to the distribution of landed property Dalmatia presents two extremes : properties are very large or very small. This is due to spe-

(2) 1 hectare = 2.47 acres.

cial conditions in the country. The feudal regime established under the influence of Venetian dominion, Turkish dominion and Slav customs has been preserved until to-day.

The large properties belong to individuals or to the communes, the latter owning altogether 656,000 hectares or 50 per cent. of the country's whole area.

Side by side with the large properties, which are an outcome of the feudal system, properties of very small extent have gradually been formed as follows :

a) By means of contracts of sale and purchase. The large landowners are not averse from selling their property, for in Dalmatia there is almost always a lack of labour and very extensive areas are therefore left uncultivated.

b) By means of a distribution among members of a commune of the communal landed property. Hitherto about 12,000 hectares have thus been distributed.

c) By means of encroachments on the communal property.

Large and small properties are alike often scattered. Small proprietors generally own from three to four quarter or half-hectare plots. Large proprietors often possess fifty scattered parcels of land, sometimes even more. Among the reasons for this state of affairs are the unequal fertility of the lands, the distribution caused by inheritance and the encroachments.

A small proprietor himself cultivates and realizes the value of his land ; whereas a large proprietor nearly always lets it. The latter himself cultivates it and realizes its value only exceptionally, most frequently in the south of Dalmatia, in the province of Kanali where there is an abundant supply of Montenegrin labour.

Large properties are always let in parcels. There are two forms of leases ; a) the ordinary lease which is very rare ; and b) the contract of cultivation, a type to which from 85 to 90 per cent. of the contracts conform. Parcels let by these contracts have an area of from one to three hectares.

The communes, especially those in the northern islands, also let the arable lands which form part of their landed property. Their woods and pasturelands are used by all their members.

Owing to the lack of labour consequent on the emigrations of recent years an important amount of land admitting of cultivation is lying fallow.

The distribution of landed property, as this has been explained, and the method by which it is cultivated, bring us to three further agrarian problems : those namely, of 1) the farming contract, 2) the distribution of communal landed property, and 3) the redivision of lands.

§ 3. THE FARMING CONTRACT.

This contract is from a legal point of view a lease *sui generis*, whereas from an economic point of view it may be regarded as imposing a slightly modified feudal tenure.

Its content is as follows:

1. The proprietor lets to the cultivator the land when it is still lying waste. The cultivator must therefore bring it under cultivation before he can farm it.

2. The duration of the contract depends on the duration of crops. Where grain is grown it is from one to two years, in the case of vineyards from twenty-five to fifty years.

3. The contract obliges the lessee to give a part of the gross products, generally a quarter, to the proprietor.

Such is the content of the normal and most usual type of contract. Exceptionally there are deviations from it as regards the duration of the lease and its terms.

The most important results of such contracts are:

a) Extensive agriculture.

b) Difficulties, unfortunately too frequent, arising between the proprietor and the lessee.

Since the lessee is obliged to render a share of the gross products to the proprietor, he does no more than cultivate the land on the extensive system, for otherwise he would have to give the proprietor all or almost all its net yield owing to the law as to a rental which is less than proportionate. Extensive agriculture is facilitated by the fact that the lessee is as a rule himself a small proprietor. It is therefore entirely to his interest to cultivate his own property first, and the land he rents is in consequence often not cultivated in time.

The lessee looks upon the proprietor as a parasite who steals from him a part of his products. He therefore seeks by every means in his power to take back what he considers to have been robbed from him.

About 1894 an event occurred which resulted in the supersession of a fair number of farming contracts by ordinary leases.

Towards 1890 the phylloxera appeared in the country. Gradually the vineyards of Dalmatia were devastated. This fact in itself annulled the contracts relevant to them. Everywhere people began to replace the indigenous vine with the American variety. Plantation however necessitated larger expenditure. Contracts of lease are more easily adapted than farming contracts to plantations of this kind; and so it came about that a misfortune produced good results. The farming contracts were reduced by 20 per cent.

§ 4. DISTRIBUTION OF COMMUNAL LANDED PROPERTY.

The communal property has an area of 656,000 hectares. Its greater part, that is about 55 per cent., is pastureland. Woodland constitutes 30 per cent. and the rest is arable land. The words woodland and pastureland must be given the denotation we have already explained.

On the pastureland the animals of all the members of a commune are pastured. In the woods animals are pastured and wood is cut. In this connection woodcutting properly so-called must be distinguished from the gathering of leaves for forage. Woodcutting is undertaken without any method and the result is real devastation.

Arable land is let by farming contracts. This generally takes place in the islands of the north. Cultivators settled on land belonging to the communes enjoy slightly better conditions than those on private land. In its capacity as proprietor the commune is satisfied with little, as a rule one seventh of the yield converted into cash.

Communal property constitutes an inexhaustible source of controversy among the members of one commune and among adjacent communes. In a government report of 1870 it was said to produce a little grass and many lawsuits. The shepherds are well armed while they pasture their flocks and are almost always at war with members of their commune or with the shepherds of adjacent communes.

Communal property is being more and more reduced in extent by encroachments on the part of those members of communes who are protected by the communal council. These are declared to be proprietors after they have been occupiers for a certain number of years. But it is not rare for a second encroachment to supersede the first on the occasion of a change in the communal council.

Until 1850 the communes paid no taxes on their property because their members paid a tax as usufructories. From 1850 the State placed a land tax on the communal property and the contribution of the usufructories was thereafter paid to the communes.

Until 1850 no change was introduced into communal property. In that year, after the cadaster had been established, it became liable, as has been said, to the land tax. In the same year occurred the first scheme for the distribution of communal property to the members of communes. There have been many subsequent and similar schemes.

For twenty-six years none of them produced any effect; but on 27 March 1876 they had an important result, namely the promulgation of the law on the distribution of communal property.

The terms of this law are as follows:

1. The distribution of communal property is optional. Every commune may either distribute it or retain it as communal.

2. Distribution is made on the following conditions:

a) A majority of the communal council must have voted in favour of a proposed distribution.

b) It must be accepted by an absolute majority of all the inhabitants registered by the census of the commune.

3. The distribution among the members of the commune will be made by the communal authorities, assisted by a surveyor.

4. Before a distribution is made the land which it should not affect, that is the land which will remain the commune's property, will be surrounded by a hedge.

Hitherto 12,000 hectares have been distributed in fourteen communes, in accordance with this law.

§ 5. REDIVISION.

We will devote a few words to the problem of redivision.

It has already been said that landed property in Dalmatia is too much scattered, many proprietors owning from fifty to eighty parcels of land.

In view of this state of affairs redivision would be very useful. It is however very rarely proposed and the law on subdivision promulgated in 1883 has never been applied. The reason for these circumstances is not hard to seek.

The problems of the farming contracts and of the distribution of landed property are distinct. That of division cannot however be solved finally, in view of existing agrarian relations, until after the two former. If a redivision were to be undertaken today it could be only provisional and would have to be renewed after the other two problems had been solved.

Owing to such dependence on other questions redivision cannot be considered in isolation. Redivision was last proposed in 1910 by Deputy Sununcitch, who suggested that it should be undertaken simultaneously with the solution of the problems of the farming contracts and of the distribution of communal property,

UNITED STATES.

FARM TENANCY IN THE UNITED STATES

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INTRODUCTION.

So far as the authentic history of tenancy in the United States is concerned it may be said to begin with the year 1880 since at that time the first tenancy census was taken. The percentage of farms operated by tenants for the four census years, by divisions, were as follows :

	1910	1900	1890	1880
United States	37.0	35.3	28.4	25.5
North Atlantic division .	18.2	20.8	18.4	16.0
South Atlantic division .	45.9	44.2	38.5	36.1
North Central division . .	28.9	27.9	33.4	20.5
South Central division. .	51.7	48.6	38.5	36.2
Western division	14.1	16.6	12.1	14.0

It will be seen that in 1880, about one in four farms was operated by a tenant; in 1910 almost two out of five were in the tenant group. Unquestionably the proportion is somewhat higher by this time than it was six years ago. The number of tenant farms increased 130 per cent. during the thirty year period covered by the statistics, while during the same time there was an increase of but 34 per cent. in the number of farms worked by owners. At these disproportionate rates of increase it will take but another three decades to result in a larger number of tenants than landowning farmers, thus making us unmistakably a nation of tenants and landlords. It is, however, by no means certain that the proportion of tenants will continue to show an uninterrupted increase. In fact the increase has already ceased, and a turn in the other direction been made, according to the last census, in twelve

of the older States. There was also a decrease in tenancy percentages in several of the newer States but the significance of the change in these States is different from that in the older settled part of the country.

Tenancy reaches its highest point in the cotton belt. For instance in Georgia two thirds of all farms are rented. The percentage is also high in the corn belt; in Illinois over two fifths of the farms are rented, and largely in the best part of the State.

It is, then, plain that the growth of tenancy in the United States has for at least three decades been rapid. Before the year 1880, there had undoubtedly been a much less rapid growth, yet it had reached important proportions nevertheless. The question may very properly be asked why so many farms should be farmed by others than their owners. Especially is this a pertinent question in view of the fact that within a half century the federal government has disposed of immense tracts of public domain on terms so favourable as to make ownership easy and the necessity of renting land of a landlord remote. Several hundred million acres of land have within a half century either been granted free of charge to the settler, or sold at such low prices as to suggest a gift. And this plan of disposing of the land was with the conscious idea of putting land into the hands of the men who should acquire it for their own use. And yet upon much of the land given away, or sold for \$ 1.25 per acre during the seventies or the eighties, are now to be found tenants, in many instances as many tenants as owners.

The causes of this remarkable development of a tenant class, if class it may be called, are complex. In the first place it may be remarked that very few American farmers prefer to be tenants rather than owners. So far as the man on the farm is concerned he is either the owner or a prospective owner. The young man expects to rent land, but always with the hope and the expectation that the tenancy will lead to ownership. Farmers remain tenants because they find the price of land high, or sometimes it may mean that the price of the farm is high not so much because of high price per acre as because it requires many acres to make an efficient unit. High price per acre would rule in the case of truck farming land, in fruit land, irrigated districts, or in general farm land near a great city. High cost of the farm as a whole, due primarily to great size, would obtain in the wheat belt and still more in the grazing belt. But whichever the cause, the fact remains that it is no easy matter for a young man to gain possession of a farm worth \$10,000 to \$20,000. Somebody must make a considerable payment on a farm of this kind before the owner is willing to take a mortgage for the balance, or a bank is willing to advance the funds.

Nearly two thirds of the farms rented are rented for a share of the product. Out of each hundred farms, twenty-four are rented in whole or in part on shares, and thirteen are rented for cash. The cash rent as used in the census figures does not always mean actual money, but instead signifies some other form of fixed payment, such as a specified quantity of cotton. It cannot be said that one form of rent payment is good and the other bad,

or that one is even better than the other. There are, however, advantages of each from the standpoint of both landlord and tenant. For instance cash rent is simpler; there is no room for disagreement as to amount, or as to time of payment. It is supposed that cash payment of rent signifies a more independent position of the tenant. He is free to do as he pleases in many particulars. Under the condition of cash rent the landlord as a rule exercises relatively little control over the management of the farm. In fact inability or unwillingness to do so is a prime reason on his part for preferring cash, even though somewhat less in amount than share rent. The problem to the landlord of sales of produce is eliminated in the case of cash payment, and all fear of an unfair division eliminated.

On the contrary there are many advantages to both parties in the sharing of the income. The tenant runs less risk, since in case of a failure or partial failure of crops, he is permitted to pay a rental proportionate to the income instead of a cash charge much beyond it. Moreover, it requires less capital on the tenant's part to start farming on shares since under these circumstances he furnishes but half, or possibly some other fraction, of the live stock, feed, and seed needed. As an offset to these advantages the tenant has less freedom of choice in running the farm, though he has the advantage of the landlord's more mature judgement. Control over the farm and its management is one of the foremost reasons for preferring to let land out on shares instead of for cash. It is the general belief on the part of landlords that on an average the returns are greater in the case of share than of cash rent. This is unquestionably true when prices of produce are above normal, or during a period of rising prices such as has obtained during the past fifteen or twenty years. For twenty years after the first tenancy census was taken cash rent gained much more rapidly than share rent and it looked as though it was to become the prevailing system. Then came the census of 1910, with the information that cash rented farms had increased in number but half as rapidly as those rented for a share. This was so pronounced a change as to call for an explanation. While other factors may have entered, the outstanding one seems to be that with the rise in prices of farm produce the share going to the landlord increased rapidly, so rapidly in fact that it was hard to pull cash rent up to the same level. As a consequence landlords were anxious to change from the cash to the share system. Tenants, although not usually so anxious for the change, would acquiesce rather than run the risk on a much increased cash basis. Even the weather may have played a part, since a prolonged series of wet years made crops uncertain in many districts and caused a change in the minds of tenants in favour of share payment. The most encouraging form of tenancy is where landlord and tenant share in both management and income, becoming as it were partners.

§ 1. LENGTH OF TENANCIES.

According to the best information available a tenant stays on a given farm hardly three years. The share tenants move a little oftener than do those paying cash. In contrast to the short period of occupancy by tenants the farms operated by owners are held by a given owner probably about sixteen years. Thus even the owners are not in the habit of staying on the same farm permanently. It must be remembered that America is a new country, and that there is still a strong tendency among farmers to move west and take advantage of the cheaper price of land. Likewise there are many small farms sold in order to purchase larger ones. As a result the farm population at best is not extremely stable.

Tenants are continually on the move because of a variety of circumstances. Many times it has been said that the short lease is the curse of American tenant farming. But the short lease is the result rather than the cause of evils. American farm land has been rising rapidly in value. It has been, in consequence, for sale. As a result of these facts many a farm changes occupants because of a change in ownership, and the owner, so long as he holds the farm for sale, is bound to lease it for short periods of time.

Another important cause of short tenures is the fact that the tenants are themselves developing into farm owners. In the normal course of events a young man starts farming on a small scale, and therefore wants a small farm. A few years later he is better satisfied with a somewhat larger farm, and hence moves if he finds an opportunity, as he usually does. But fully as important as the desire to rent a bigger farm is the prospect of owning a farm for himself. The rate at which tenants become owners is growing somewhat slower. Nevertheless the great majority of those who stay in the farming business a lifetime manage by some means to become landowners. Of all farmers below the age of twenty-five, over three fourths are tenants, whereas of those over sixty-five years of age about six sevenths are owners. It is thus plain that the short periods of occupancy of farms by tenants is in no small measure due to the constant rise of tenants to ownership on their own account.

§ 2. SPECULATION AND TENANCY.

Very closely related to length of tenure and to the amount of tenancy is speculation in land. From the very beginning of the public land policies of the country speculation on the part of individuals has played a major role. The cheap government price has always been tempting to investors, and rare indeed is the case of land which has not been held many years primarily for the rise in value. This speculative period has lasted well beyond the early years when land was cheap, and mainly unused. It pre-

vails to a great extent throughout the country today. The speculator wants to get what he can out of the land while he holds it and thus puts it on the market for rent. He is even willing to take a very moderate rental rather than not let it at all, and above all he will not tie his own hands with a long lease. In parts of the grain belt where speculation has reached its greatest development half of the farms are rented. The landlords when asked whether or not the investment is a paying one are likely to reply that the rise in land values makes it pay, though rent alone would not. So long as land continues to rise in value, so long will it be the object of speculation, and so long as non-farmers are tempted to buy it for speculation, so long again will it be offered for rent. The relationship between speculation and rent is a close one. Lest the reasoning concerning this point seem to be unduly deductive it may be said that in the older parts of the United States, where the rise in values has become much less rapid than formerly, and especially much less rapid than in the Middle West, the percentage of tenancy is in the first place lower than a few years ago, and in the second place decidedly lower than in the latter section. Moreover, in Europe where farm land is much more stable in value than in America, tenures are likewise more stable. So long as there are such splendid opportunities for profitable investments to be made in American farm lands, there is sure to be a continuation or even an increase in the proportion of farms owned by one class and operated by another.

§ 3. TENANCY AND TYPES OF AGRICULTURE.

The evidence is abundant to show that tenancy follows as the natural outcome of conditions, and one of the most important of the conditions is the character of the agriculture in practice. The tenant is transient. Consequently he is bound to adapt himself to an environment which admits of relatively easy shifts. He must get into the routine quickly on arrival at his new home, and must be able to take his possessions along with him from the farm he is leaving. This means that he owns relatively little live stock, that he plants few perennials or biennials, that he invests little money in fertilizers or sub-soil ploughs. The tenants deal with animals and crops that can be made to yield their increase within twelve months. In the truck districts they grow tomatoes, but not asparagus; potatoes, but not rhubarb. What the tenant wants is a chance to sow, harvest and sell, all within a year. It is therefore not surprising that tenancy is most prevalent in the greatest cotton, corn, and wheat districts. In the cotton belt all things seem to conspire to divorce the ownership from the tillage of the soil. The crop is given within the year; it requires but little capital on the part of the tenant, and but little improvement in the way of buildings and fences on the part of the land level. In the corn belt the broad acres capable of cultivation on a wholesale plan, with the prospect of much pro-

duce for the market within a few months, appeal strongly to the man who can command relatively more labour than capital.

The northern tenant is a grain producer and grain seller. He produces more grain of every kind than is produced by the landowning farmer. This means that the tenant raises less of the crops used for feeding young stock, such as hay and pasture crops. The grain which he raises has two main markets. One market is the city; the other is the neighbouring farmer who feeds stock, feeds more grain than he can raise.

The tenant does not go extensively into such business as dairying and for very obvious and important reasons. He must have, in order to do dairying successfully, well equipped barns, milk house, fences and the like. The landlord does not care to furnish facilities of this kind, especially the landlord who holds the farm mainly for speculation. Or again the landlord who lives at a distance from the farm hesitates to put up many improvements of this kind because of the rapid deterioration in careless hands, and many tenants are careless with property which is not their own. Another reason why tenants do not care especially to go into a business like dairying is because it makes it much harder to move and adjust themselves to farms, barns, and surroundings, such as they are likely to find in another neighbourhood. By moving they may not only be obliged to put up with equipment less adequate, but they may, by going ten miles, get away from marketing opportunities, such as milk routes, creameries, or cheese factories. The tenant is not a cattle feeder because of lack of capital required in handling the business, and lack of equipment for handling the cattle and the feed.

The tenant seldom goes into specialized farming such as fruit growing. Fruit growing is a continuous process extending over some years. The tenant has no security of tenure such as to warrant investment in trees, shrubs and labour such as fruit growing requires. Neither does he have character, habits and skill so developed as to make it desirable to lease him a fruit farm which has already been put into shape. The chances are that he will be much more interested in the crop in sight than in subsequent harvests. Only two to four per cent. of the citrus fruits are grown by tenants and an unimportant part of the commercially grown apples are so produced. Specialized farming, such as tobacco or vegetable growing, lends itself very well to tenant conditions, since these crops require little equipment, and but few months.

Summing up the question of the relation of type of agriculture to tenancy, it appears that the tenant is an exploiter of the soil. He does a hand-to-mouth business, and not much may be expected of the farmer whose interests in the farm begin and end within a space of two or three years.

Relative Profits Made by Tenants and Landowning Farmers.

It is usually taken for granted that tenants are poor. As shown above they have not accumulated a great deal of property from their own operations. Not a great many young farmers inherit a fortune, and even should

they inherit a considerable amount of property it is likely to fall into their hands in middle life, not when they are making a beginning as farmers. The tenant is, without doubt, in most cases a poor man. However, he is not doomed to remain a poor man always. Somewhat surprising was the result of a government survey made a few years ago into the condition of over seven hundred representative farmers in several northern States. It appears from this survey that tenants make a larger labour income than do landowning farmers. This is another way of saying that under present conditions and circumstances farming as a business does not return a large percentage on the investment. In other words, land rentals have been capitalized at a low rate of interest and in consequence land values are high. Rentals do not rise as readily as the selling value of land and, therefore, other things being equal, it is cheaper to rent land than to buy it. Of course, other things are by no means equal, and it would be hazardous to say that it is better to rent than to buy, but it is safe to say that one must pay for the advantages of owning land. The tenants have more to show for a year's work, so far as immediate income is concerned, than have farmers who own the land they work. This is true if five per cent. interest be charged on the investment in land. Turning the problem around, it may be shown that, since the landowner earns fully as much as a labourer as does the tenant, he has but three to three and a half per cent. interest on his investment. This suggests strongly that the prices of land are too high, and that a farmer will do better to rent than to buy. However, land is still rising in value, especially in the parts of the country where tenancy is prevalent, and the owner has the advantage of the increase in value while the tenant does not. Add to this the great advantage in having control over the operations of a farm for a considerable period of years, the satisfaction of staying in one place and building up a business, and, all told, it suggests caution in advising a man who is able to buy to refrain from doing so. The labour income of the tenant is indeed larger than that of the landowning farmer, but the accumulated wealth at the end of a few years is larger in the case of the landowner.

§ 4. RELATION OF TENANCY TO PERMANENT AGRICULTURE.

The question may well be asked whether tenancy is or is not compatible with the maintenance of soil fertility. In England it has been found possible to keep the soil up to its best over several generations of a landlord-tenant system. But in England the landlords are neither retired farmers, hoping to leave as large an estate in immediate value as possible, nor yet are they speculators who hope to make a sale at an advanced price. The interest of the landlord in the land is a permanent one, and as a corollary to this the interest of the tenant in the land is hardly less permanent. The tenant moves very infrequently and has no hope, usually no desire, to buy land. As the tenant does desire to have the land continue to yield well,

he is willing to make investments to that end, but he does not want to lose the investment in the event of leaving the farm. In America we have hardly reached the point of taking such matters into consideration. First, the landlord usually owns the farm but a decade or two, and the soil will not be greatly depleted in so short a time. Secondly, the tenant who is to stay but a quarter of a decade can hardly take any profound interest in building up the soil. Thus the arrangement which most often obtains impels neither landlord nor tenant to take a great deal of interest in permanent agriculture. The landlord expects to sell the land; the tenant expects to leave it. Very little is invested in fertilizers throughout the grain belt; the tenant very rarely puts any sort of improvement upon the land. Hence, there is but little over which to debate concerning rights when the farm changes hands.

It cannot be held that the fertility is being maintained on the great majority of rented farms. In the very best parts of the country the contrary is the case. True, the census reports show that tenants raise about as much grain per acre as is raised by the owners. This is accounted for in part by the fact that the tenant farms are not a separate group always rented, as distinguished from another group always operated by owners. There is a good deal of interchange. But after all, the fact that the tenants raise about as much produce per acre as the owners proves too much. The tenant sells a large part of his produce in the bulky form of field crops, and this in itself must eventually result in soil depletion. The tenant has decidedly less interest in soil maintenance than has the landlord, and the landlord's interest under present conditions is little enough. When stable values eliminate the speculator, and when few farmers can retire on the strength of unearned increment gains, then we shall have a class of landlords who take a more fundamental interest in the soil and likewise a class of tenants who can afford to co-operate in the up-building of better farming.

The laws at present do not protect the tenant in his right to improvements. On the other hand it is a rare thing for the tenant to wish to make improvements. He may complain because improvements are inadequate, he may urge the landlord to improve; more likely he will move to another farm if conditions are found to be to bad. But that he should put improvements of any sort on the farm will seldom occur to an American tenant. Should laws be made protecting the tenant in this right, it is more than likely that gradually tenants would begin a new regime of land improvement, but it would never progress far while the tenure is, on an average, so short.

§ 5. TENANCY AND MARKETING PROBLEMS.

One of the worst of the tenant evils is the helpless condition in which the tenant is placed with respect to marketing. It is folly to proceed with processes leading always to greater production without taking the marketing possibilities into account. The tenant is a poor bargainer in the market be-

cause so often he is forced to sell almost immediately. In the South the cotton tenant is nearly always in debt for the supplies of the year, and his obligations are due 1 October, or 1 November. This means that he must sell his cotton almost at the earliest possible moment after it is harvested. In farmers' organizations the tenants are very poorly represented. An investigation made a year ago showed that in sections of the grain belt, where tenants are almost as numerous as owners and substantially always grain sellers, the membership in co-operative companies was but one fourth tenants. This means that only half as high a proportion of tenants as owners belonged to the marketing organizations. In other words while tenants sell more grain than owners, there are three owners to one tenant in the selling company.

Tenants as a class are seldom found in organizations. They do not join since they are so likely to move, or on account of lack of money, or again on account of indifference.

Tenants are poor community members. It is not their fault altogether but rather the fault of the system. They cannot be good community members in very solid ways since that implies investment, and for a tenant to invest in schools, roads or churches means an investment for which he gets no title. When a farm owner sells out, he sells his right to community investments along with the farm. When a tenant moves he takes his personal property along with him, and if he has any interest in community property he leaves it behind. As a result he is usually careful that little is created to be so left.

§ 6. THE OUTLOOK.

What then is the outlook? Is America doomed to become a nation of landlords and tenants? True, the proportion of tenants is on the increase, but not in quite all sections. Neither is there an increase in tenancy in all kinds of farming. Another fact that is fairly encouraging is that along with the increase in tenancy there is little tendency toward centralization in land ownership. In about 60 per cent. of the instances of tenancy the owner of the farm owns but the one. And moreover the tenant farms differ little in size from owned farms. Thus landlords own but little more land than is owned by an equal number of landowning farmers. Of course there are many important and unfortunate exceptions to this. Such exceptions are found oftener than anywhere else in the cotton belt, where the ownership of several farms by one man is not uncommon.

Tenancy has often been called a step in the agricultural ladder. The figure of speech is a very good one, since the majority of tenants rise to ownership. However the step is a more difficult one to take now than it was a decade or a quarter century ago. Should it continue to become more difficult for another generation, we must eventually face the fact of a tenant

class, a class which can hardly be said to exist outside of the coloured population of the South.

The tide will turn in favour of ownership if ever we reach the stage where the speculative value of land disappears ; where few farmers are able to retire on the basis of wealth accruing through unearned increment ; and where, therefore, land is worth a sum based on its productivity.

This is on the assumption that a system of agricultural credit favourable to the farmers will in the meantime be worked out. One of the main reasons why it seems safe to suggest that these conditions will result in ownership rather than tenancy is because it is not likely that any system will soon be devised whereby the fertility of the soil will be as well conserved under a tenant system as under a system of ownership.

MISCELLANEOUS INFORMATION
RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

AUSTRALIA.

LAND SETTLEMENT IN 1915-1916

New South Wales. — The annual report of the Lands Department for the year ending 30 June 1916 shows that in that year 2,279,417 acres of land became available for settlement in New South Wales. Areas aggregating 1,345,218 acres were withdrawn from long leases and 535,478 acres were resumed. Four estates were acquired under the Closer Settlement Acts. In all thirty-four estates, providing 1660 farms, were acquired. Forty-six of these farms, comprising 41,637 acres, were vacant on 30 June 1916.

The following figures show the progress of settlement on the various estates acquired under the Closer Settlement Acts: — Number of farms allotted, 1609; area allotted, 748,573 acres; persons resident, 7,410; area prepared for cultivation, 357,591 acres; value of improvements, £1,149,802; value of plant and machinery, £326,844; number of horses, 17,584; sheep, 191,924; cattle 12,610.

The report of the Western Land Board states that, owing to the continuance of drought and the absence of so many men at the war, there was little demand for land in the western division. Seven new leases were issued and concerned an aggregate area of 29,936 acres. The receipts for the year amounted to £90,073 and the expenditure to £10,518.

Victoria. — As regards Victoria the report of the Lands Department for the year ending 30 June 1916 states that the absence on military service of a large proportion of the young men of the State was a grave deterrent to new settlement. The following figures show its progress in the year: — 568 holdings aggregating 101,556 acres, exclusive of Mallee land, newly selected; 238 holdings of Mallee land, aggregating 140,325 acres, newly selected; 146 holdings aggregating 46,522 acres selected out of grazing area leaseholds; 179 holdings aggregating 3,175 acres converted to selection tenure.

There was an appreciable decline in the demand for Mallee land.

It was hoped in the early part of the year that the exceptionally large wheat harvest would result in considerable payments of the arrears of rent due to the department, but against this the war conditions operated. These arrears on 30 June 1915 were on crown lands, £49,233 18s. 5d. and on Mallee lands £127,184 1s. 5d.; and on 30 June 1916 they were £45,141 on crown lands and £140,060 on Mallee lands. Not less

than one third of the amount advanced for the purchase of seed and fodder should have been a charge on the returns of 1915-1916, but the ministry decided to make no deduction from the advance of 2s. 6d. a bushel, and to defer the collection of instalments until a further amount, or dividend, should have been paid. This concession seriously reduced the amount received as repayment of advances. Up to the end of the financial year a sum of £95,535 was repaid out of the total sum of money lent in the previous year, £516,000. Of the balance one third is payable from the 1916 harvest and one third may be carried on to the next year. For the year 1916 the number of crop liens registered was 3,032.

BRITISH INDIA.

THE COLONIZATION OF CANAL LANDS IN THE PUNJAB. — VAN BURREN Henry L.
in *The Tropical Agriculturist* Vol. XLVII., No. 6, Peradeniya (Ceylon), December 1916.

The south western Punjab is part of a vast desert which may be said to extend from the Sahara to Manchuria. It supported only a sparse and nomadic population until 1849, when the British annexed this part of the Punjab, and colonization of its desert wastes was not seriously thought of until 1885 when a policy of canal irrigation was initiated.

Five great perennial canals, which together irrigate a wheat area rather more than twice the size of Ceylon, were then taken in hand. One of them, completed in 1892, commands three and a third million acres, three fourths of such area being State property, and irrigates over two and a half million acres a year. The capital expended on it was 300 lacs of rupees (1) which now bring in interest at the average rate of about 28 per cent. Another canal which was finished about 1911 irrigates some three quarters of a million acres and pays interest on the capital invested in it at the rate of more than 10 per cent.

Before 1892 the population of the Lyallpur district could not have been more than 2,000. In 1912 it had increased to over 850,000.

To settle so large an agricultural population was no easy matter. The problem needed wise statesmanship, a very intimate knowledge of the peasant farmer and his ideas, enthusiasm and a kindly sympathy. That these are of more importance than the principles on which projects and schemes were based should be emphasized. Thus Sir James Douie writes: — "The colonies have been admirable training ground for the ablest of the younger Punjab officers. It was necessary to give them a pretty free hand, the work was novel and important, and involved great responsibilities. While he was controlled from outside, the colony officer inside his colony had to be a benevolent autocrat. Autocracy is tolerable when the autocrat is content to be also the servant of his people, and in this respect the Punjab officers did not show themselves lacking".

(1) 1 lac = 1,00,000 rupees; 1 rupee = 15 *1d.*

It must not be thought that no mistakes were made, for the problems were novel and at times very difficult. Nor must it be thought that there were no setbacks. Plague invaded the province in 1897 and broke out virulently in the canal districts in 1904 and 1907. Outbreaks of cholera were also frequent. In 1905 crops were injured by frost and almost the whole crop of cotton was destroyed by the boll-worm.

The settlement scheme has now passed the experimental stage and stands out as one of the most notable achievements of British administration in India.

Sir James Lyall's name will always be associated with this work. He gave his conception of a scheme of colonization thus: — "An attempt should be made to establish estates owned by bodies of peasant proprietors. [The Punjab is chiefly a country of small holdings]. In the eastern part of the Punjab and in the sub-Himalayan tracts there are found not infrequently villages peopled by agriculturists of the best type, who have increased in numbers until the lands which they own are insufficient for their support; often the owners of such estates have been accustomed to cultivate as tenants in neighbouring villages. But, owing to the owners of those villages now requiring the lands for themselves, (they) are gradually being ejected. It would improve the general condition... if some of the proprietors would emigrate to other countries... A number of men of this class might be induced to settle in the Gujranwala Bar by being allowed to migrate in bodies... formed by themselves, and by the promise on certain conditions of grants of land ... The experiment might be tried in the following way.... Go to places in the thickly populated districts, where groups of adjacent villages are owned by men of the same clan, and.... search among them for men of some amount of enterprise, capital and influence, and ask such men.... to lead down bodies of men of their own clan to the government lands irrigated by the canal. Well selected blocks would be made over to the bodies so migrating. The leader of the colony would be given an interest in its success not only by receiving a share in the proprietorship but also by his being made headman of the new estate".

Sir James Lyall thought it "essential to preserve the tradition of the Punjab as a country of peasant farmers". He however made three kinds of grants. "Yeoman grants" were to attract a class above the ordinary peasantry — the middle class. "Capitalist" holdings were granted so as to supply "natural leaders for the new society". It is interesting to note that yeoman and capitalist grants have been given up. Grants of land to native officials for meritorious service are condemned as a result of experience. Grants are occasionally made, however, to members of the hereditary landed gentry. The peasant farmers' settlements were most successful, and from settlers on them leaders and captains of industry are gradually arising.

The system of allocating land now approved is to give each peasant a rectangle of twenty-five acres. On fulfilling the conditions of the lease he can, after five years, acquire a permanent right of occupancy, which can be converted into ownership if he pay the market value of the land, as de-

duced from auction sales, less a fixed percentage. The purchase money may be paid in instalments which may extend over thirty years. Until it is paid the settler remains a tenant, and pays R. 1 an acre, in addition to water rates, land revenue and cesses.

The pioneering attempts to colonize the land allowed the settler, after five years and on fulfilling the terms of the lease, to acquire ownership by paying only Rs. 3 an acre. Subsequent modifications were due to the eager competition for the land after pioneering difficulties had been overcome.

Before the land was let out on leases contour maps of the irrigable lands were made and the areas served by separate water-courses defined. Village areas were made to coincide with water-course areas, and each village was subdivided into squares or rectangles which formed the units for allotment. It was found necessary later also to survey the soil before allotment; for there must be discrimination between good and mediocre land and land too poor for cultivation, if it be desired that water-courses should not be carried uselessly into land not worth irrigating, and many difficulties raised.

The selection of peasant settlers, their location on the land and care for their future welfare are by no means the least part of the scheme, but may on the contrary be said to sum it up. It is to work of the kind which has been emphasized that the success of this colonization is largely due.

BRITISH WEST INDIES.

THE PROGRESS OF LAND SETTLEMENT IN GRENADA.

The Report of the Agricultural Department for 1915-1916 shows considerable activity in Grenada in the matter of land settlement. The government acquired the estate known as the St. Cyr Mountain Lands, situated about ten miles from St. Georges, for £2,184, which sum with the cost of a survey and of road construction and other expenses brought the total cost up to £3,597-10s. The roads for the purpose of giving access from every lot to the by-ways of the district cost £235 and their total length was three and a half miles. Their construction, and that of a connection, one and a half miles long, between the Beauregard and Adelphi by-ways, were carried out by the Agricultural Department.

Thirty-six lots bear cacao or mixed cacao and nutmeg trees on a quarter of an acre or more land, on their entire area in only a few cases. Other eighty-four lots are bush or forest land. The average area of a lot is two acres.

The lots on which there is cacao were sold at from about £14 to £35 an acre, according to the number and condition of the trees; the uncultivated lots at £10-10s and £12 an acre. Purchasers of the more costly lots, which contained cacao, had to pay a deposit of at least 1s 3d and the balance of the total price in five annual instalments. The uncultiva-

ted land was sold on the usual land settlement terms. One fourth or one twelfth of the price was deposited : and the balance is to be paid when a fourth has been deposited, in nine annual instalments of which the first falls due three years after the allotment ; and when only a twelfth has been deposited, in eleven annual instalments beginning a year after allotment. Interest is charged on all unpaid instalments at the rate of 5 per cent.

A special committee of the district board of St. Andrew's parish, in which the settlement is situated, co-operated with the Agricultural Department in selecting desirable settlers. Two hundred and ninety-one applications were considered.

The superintendent's report on the valuation of the lots for sale was submitted in March 1915. The first applications were dealt with in April, and by the end of the year under review practically all the lots had been allotted and occupied. They are being worked, except a few of those occupied lately, and on some very good progress has been made. These results are on the whole very satisfactory, and are proof of the activity of the Agricultural Department even in its present understaffed condition.

The estate is well watered by four tributaries of the Fond Perdu River ; and the climate is damp, the annual rainfall being estimated at 100 inches. The soil is mostly a fairly deep loam, dark brown in colour, and the subsoil red clay, interspersed with boulders about two feet below the surface which crop out here and there. The subsoil is rather close in texture, but the surface soil is fairly friable and therefore can be improved by tillage and drainage. It is well suited to the cultivation of ground crops. The cacao can be considerably improved, particularly by draining the land and adding organic matter to enhance its permanent fertility. The estate is fertile except in the south-east corner. It has two warm mineral springs, one at the west end and one in the river.

FRANCE.

AGRICULTURAL WAGES DURING THE WAR. — Communication made by M. Paul Vincey to the *Académie d'Agriculture de France* at the meeting of 21 March 1917.

M. Paul Vincey resumes as follows the facts as to the increase in agricultural wages which has occurred during the present war in the district of Paris, more particularly in the three departments of Seine, Seine-et-Oise and Seine-et-Marne.

As is the case everywhere in France mobilization has reduced the available supply of labour by the enormous amount of two thirds, or even perhaps three fourths.

For reasons easy to understand the production of the labourers who have remained on the soil or have come to it — old men, women, children, refugees from the north, soldiers on leave — has also diminished markedly, apparently by one third as compared with the normal production before the war.

The following table shows for the three years 1914 (before the war) 1915 and 1916 and the district under consideration the average wages of persons lodged and fed and otherwise, paid by the day, the month and the piece, and employed on the special works of dressing and uprooting beetroot and of the hay and corn-harvests.

These wages are paid in the three departments within the district considered. It should be remembered that in Seine wages are generally higher and in Seine-et-Marne lower than in Seine-et-Oise, where they reach an intermediary level.

Agricultural Wages in the District of Paris.

Class of Labourer	Employees neither lodged nor fed			Employees lodged and fed				
	Francs (1)			Francs				
	1914	1915	1916	1914	1915	1916		
<i>Daily Wages.</i>								
Journeymen	4.50	5.50	6	2	3	3.50		
Workmen	4.50	5	5.50	2	2.50	3		
Mechanics	6.50	7.50	8.50					
Threshers	5	5.50	6.50					
Smiths, harness-makers, wheel-wrights . .	5.50	6.50	7.50					
<i>Daily Wages for Special Work.</i>								
Harvesters	11	13	15					
Mowers	10	12	14					
Haymakers	6	7	8					
<i>Monthly Wages.</i>								
Farm clerks	230	270	300	160	190	210		
Ploughmen	150	170	180	75	90	100		
Cattle herds	140	160	170	75	85	90		
Shepherds	140	150	160	75	80	85		
Cowmen	145	155	160	75	80	85		
Farm servants	{	Men	130	140	150	65	75	80
		Women	90	100	110	50	55	60
<i>Wages for Piece-Work per Hectare (2).</i>								
Dressing beetroot	70	80	90					
Uprooting beetroot	60	70	80					
Mowing	30	40	50					
Harvest (reaping and binding)	60	85	100					

(1) 1 franc = 9 3/5 d. at par (2) 1 hectare = 2.47 acres.

These results, which were obtained by a correspondence with persons in the industry, should be regarded only as giving the averages obtaining in the Paris district. In many cases the wages in use are above, or below those in the table.

For a working day the wages given as those of the employees who are fed are generally less by from 2.50 to 3 francs than those of similar labourers finding their own food. It is none the less true that the cost of food rose progressively from 2.50 francs to 3.50 francs and more for one working day between 1914 and 1916.

A comparison between daily and monthly wages in 1916 and 1914 shows a general increase of about 33 per cent.

If the diminution already cited in average production be taken into account, it appears that the real wages of agricultural labour have increased by about two thirds during the present war.

This is also the rate at which the wages of piece-work, mowing and harvesting, and in many cases those of dressing and uprooting beetroot, have increased.

In the Paris district the wages of military labourers — that is of men on leave or belonging to establishments — are as follows :

Balance (every rank)	0.25 francs
Indemnity for clothes	0.25
» » labour	1.65
	<hr/>
	2.15 francs,

that is 5.15 francs with food which can be valued, on an average, at 3 francs a day.

This rise in the price of labour is certainly the chief factor which has raised the price of the various agricultural products, as the scarcity of labour is chiefly responsible for the progressive diminution of agricultural production.

GREAT BRITAIN AND IRELAND.

WOMEN WORKERS ON THE FARM. — *Agricultural Gazette*, London, Vol. LXXXIV, No. 2243, 25 December 1916.

The suitability of women to perform many of the branches of farm and horticultural work was recognized at an early date of the war, and in order to promote their employment special steps were taken by the Board of Trade, acting in conjunction with the Board of Agriculture. The progress made in the substitution of women for men in agriculture has been slow, and is in no way commensurate with that achieved in industrial

and commercial occupations. The difficulties attendant on the work have been most serious. Prejudice on the part of the farmers, reluctance on the part of the women, insufficiency of housing accommodation, lowness of wages, have all proved serious obstacles.

To try to overcome these difficulties, a campaign of propaganda work was instituted in the spring of 1915 by the Board of Agriculture and the Board of Trade. As a result of the combined action of the boards, local voluntary committees, known generally as Women's County War Agricultural Committees, have been formed. At the present time there are sixty-three such committees, whose function is:

- 1) To carry on propaganda work to promote the employment of women in agriculture.

- 2) To register women, and arrange for placing them in work and for their training where necessary.

- 3) To increase the production of home-grown food in every village.

The organization which it has been sought to establish has been in the nature of a county committee working through local committees or village registrars — the usual procedure being to divide the county into districts, each having a representative. The representatives form the county committee, in charge of the general organization, and each of them is responsible for the work carried on in his or her own locality by means of a district committee or a registrar, or both, appointed in each village. There are now 1,060 district representatives and 4,000 village registrars. In some cases the Women's County Committees have a separate existence, although they work in co-operation with the men's County War Agricultural Committees, called into being by Lord Selborne in August 1915. In others they are sub-committees of the War Agricultural Committees.

A certificate has been issued to workers at the discretion of the committees, at the time of registration or only after proved service, or in some cases not at all. After they have completed thirty days' service on the land, registered women are entitled to wear a government armlet of green baize which bears the royal crown in scarlet. 72,021 certificates and 62,000 armlets have been issued.

It has been very difficult to obtain statistics from the committees and such as they have supplied are not reliable. The approximate returns indicate that nearly 140,000 women have been registered, including all who have volunteered both for whole and for part time service. In certain counties — as Northumberland, Wilts, Devon, Kent and parts of Lincolnshire — and also in Wales, women have always been on the land in large numbers, and many of these do not care to register as they think that by so doing they may make themselves liable to some form of compulsory service. In one of the divisions of Lincolnshire, for instance, 599 women have been returned as registered and 2,041 as working; and in many villages the registrars can give no accurate idea of the number working as the farmers so frequently make their own independent arrangements. It appears that the comparatively small demand by

farmers for the service of women up to the last few months has been due in the main to the following reasons :

- (1) The number of farm labourers exempted.
 - (2) The fact that the shortage of labour has been largely met by :
 - a) Release of soldiers.
 - b) Release of school children.
 - c) Increased use of machinery
 - d) A lower standard of cultivation.
 - (3) The unwillingness on the part of large numbers of farmers to employ women.
 - (4) The difficulty of providing accommodation for imported women.
- The housing problem in rural districts, already existent before the war, has been much intensified by the fact that the wives and families of men who joined the colours have been permitted to remain in their cottages. The result of this has been that the farmer has often been unable to replace the men either by other men or by women.

The work undertaken by the woman worker on the land is of a diverse character, and includes some occupations which do not in any way, as a rule, fall within the women's province.

The following is a list of occupations in which women have been and are now engaged in various parts of the country : —

1. General farm work — (a) cleaning land ; (b) stone picking ; (c) weeding ; (d) thistle cutting ; (e) manure spreading ; (f) singling and hoeing turnips ; (g) potato setting and lifting ; and (h) vegetable planting and transplanting. 2. Milking. 3. Stock tending and rearing. 4. Butter making. 5. Cheese making. 6. Poultry rearing. 7. Haymaking. 8. Harvesting. 9. Sheep shearing. 10. Thatching. 11. Stacking. 12. Ploughing. 13. Loading and unloading. 14. Threshing. 15. Fruit picking. 16. Hop picking. 17. Reed stripping. 18. Bark puling. 19. Timber felling. 20. Gardening — (a) jobbing ; (b) market gardening ; (c) domestic gardening ; (d) cultivating allotments and waste land ; and (e) co-operative gardening.

The experience gained during the war goes to prove that some women can do anything and everything on the land, and do it well, but that the average woman is useful chiefly for occupations 1 to 7 and for 15, 16 and 20. In numbers 2 and 3 they have shown themselves very successful.

ITALY.

1. THE INSTITUTION OF A NATIONAL LABOUR EXCHANGE. — *L'Umanitaria*, Milan, No. 1, 31 January 1917.

In order to provide for the placing of the labour belonging especially to agricultural and public works, the demand for which occurs now in one and

now in another district, the *Società Umanitaria* of Milan has instituted labour exchanges for peasants which complete the organization of the urban labour exchanges, and also — in co-operation with the office of Emigration — has set up a National Labour Exchange called the *Ufficio Nazionale di Collocamento*. The essential task of the latter is the placing of groups of labourers, that of isolated labourers being left to the office at Milan even if the demand comes from elsewhere.

The exchange places labour in Italy exclusively: outside Italy this function, in view of the necessity of estimating local conditions, belongs to the Office of Emigration. The exchange collects offers of labour by the medium of the sections of the *Società Umanitaria*, the local labour exchanges, the secretariats of emigration, the offices and chambers of labour, the trade organizations, and — where such associations and institutions are lacking — by means of correspondence. By the medium of such bodies or otherwise it should methodically collect the available labour supply. It provokes demands for labour, causing them to be directed to itself as much as possible and therefore maintaining constant relations with the ambulant chairs of agriculture, agricultural associations and committees, and — for the period of the war — with the provincial commissions of agriculture. In placing labour it takes into account the condition of labourers in the districts whence there is emigration, as well as unemployment in the various provinces, and seeks to form squadrons of labourers whose technique and territorial origin give them homogeneity. It aims at the regulation of conditions of labour by written contracts. In the case of a strike or a lock-out the placing of labour is interrupted. The exchange inspects places of employment when necessary, either before labour is allocated or while work is in course.

It proposes further to contribute, as suitably as possible and in harmony with the work developed by the *Società Umanitaria*, to raising the moral and intellectual standard of labourers in employment, and to spreading a knowledge of laws affecting labour, thrift, etc.

There is at the exchange a commission of consultation and vigilance constituted by a representative of the general confederation of labour, a representative of the federation of labourers on the soil, a representative of the building federation and a representative of the secretariats of emigration. This commission meets at least once in every three months, when it takes note of the work which has been done, makes suggestions for the better working of the exchange, and sees that labour is placed in the best conditions.

* * *

2. A GENERAL COMMISSARIAT FOR FOOD CONSUMPTION. — *Gazzetta Ufficiale del Regno d'Italia*, Rome, No. 21, 26 January 1917.

To guarantee the policy with regard to consumption the largest, the most prompt and the most effective development, in relation to the neces-

sities arising out of present circumstances, a lieutenant's decree of 16 January 1917 (no. 76) has provided that the powers of the government to regulate the consumption of food shall be exercised for the duration of the war by a committee composed of the Ministers of Agriculture, of the Interior, of Marine and Railway Transport and of War, and a minister without a portfolio.

As the organ of this committee of ministers, and dependent on it, a general commissariat for food consumption has been instituted and has the following duties : *a*) to requisition for the needs of public administrations and the civil population merchandise and if necessary producing establishments, fixing prices and the amount of compensation to be paid for the requisition ; *b*) to fix the maximum prices at which foods may be sold to the public and see that they are applied ; *c*) to supply imported and requisitioned merchandise to be sold to the public by the medium of local public administrations ; *d*) to authorize the eventual constitution of autonomous bodies of consumers (1) ; *e*) to regulate the sale and consumption of merchandise of which there is a manifest shortage.

The general commissariat takes the action necessary to the fulfilment of these ends and watches over the execution of all measures tending to regulate the consumption of food. It can issue ordinances for the execution of provisions regarding consumption, and can decide on any measure thus rendered necessary, according to the resolutions of the majority of the aforesaid committee of ministers to which it is directly responsible. Prefects and all local authorities must execute the ordinances and provisions thus issued. Finally the commissariat can act towards the two houses of parliament as a government commissary, in conformity with the statutes of the kingdom.

* * *

3. THE PROTECTION GIVEN BY THE PROVINCE OF FLORENCE TO THE ORPHANS OF PEASANTS KILLED DURING THE WAR. — *L'Agricoltura Toscana*, Florence, No. 4, 28 February 1917.

Readers of this Review know that last December there was formed in Rome the *Opera nazionale per gli orfani dei contadini morti in guerra*, which

(1) The autonomous bodies of consumers are constituted and financed by the local administrations, the co-operative societies, the institutions of credit and individuals, and are destined to exercise a healthy and moderating influence and even to compel private dealers to lower prices. The commissariat of which we have spoken facilitates their task in every way for it hopes to profit by the effect of their action. There are already such bodies in the provinces of Genoa, Rome, Piacenza, Portomaurizio, Siena, Mantua, Aquila, Lucca, Cosenza, Turin, Ascoli-Piceno, etc., and many others are in course of formation. In order to hasten their legal recognition the government has issued special rules and instructions. By force of the lieutenant's decree of 11 April 1917, no. 85, the acts of their constitution are exempt from the stamp and registration duties ; and all other acts which they may pass after their constitution are subject to the ordinary stamp duties and are registered on payment of the fixed duty of 2.70 lias (1 lira = 9 $\frac{3}{8}$ d at par).

aims at promoting in Italy a complete and vast organization for helping the orphans of peasants killed in the war and giving them an agricultural training. The basis of this organization is the foundation — already accomplished — in the respective Italian provinces of special protecting agencies (1) which propose in general to assist the orphans in two ways: to increase a widow's pension when that paid by the State is insufficient, as when the number of children is excessive; and to see that the orphans have suitable instruction in agriculture and the necessary education, receiving them, when they cannot be maintained in their families or by their mothers, in special institutions — agricultural colonies — in which an agricultural training is given so essentially practical that they return to the soil capable of improving it and increasing its production (2).

Recently, by a prefectural decree of 27 January 1917, there was constituted the *Patronato provinciale per gli orfani dei contadini morti in guerra* which has its headquarters at Florence. It proposes to assist the orphans of peasants who have died on the field or in consequence of the state of war; and small labourer proprietors and leaseholders, as well as labourers habitually employed on fieldwork, are assimilated to peasants. The assistance takes the form of a) guardianship of rights and interests; b) responsibility for the upbringing, education and instruction adapted to the children's condition and the kind of agriculture they will practise. Moral assistance will be given to all the orphans, material assistance to the most needy of them. To reach its ends this protective agency will secure that the orphans are as a rule left in their own families, and are entrusted, when these are non-existent or offer insufficient moral guarantees, to parents belonging to the colony or other colonists' families. The agency will promote the formation of special local committees. For its working expenses it disposes of: a) the eventual returns on its capital; b) the annual contributions of its members; c) subsidies; d) eventual donations, legacies, temporary allocations and extraordinary income. The agency has the following categories of members: a) ordinary members who engage for three years to pay at

(1) Certain of the 69 protective agencies for the orphans of peasants killed in the war, already formed in all the provinces of Italy, own a capital of more than 500,000 liras, accumulated by means of contributions from the provinces, the communes, individuals and various corporations; and others have already ensured an annual budget of more than 50,000 liras. We signalize the instance of Parma. Among the provinces Verona has already voted a budget for the orphans of 100,000 liras, Mantua one of 100,000 liras, Vicenza one of 20,000 liras, etc. For the organization of the agencies for protecting the orphans of peasants killed in the war see an article by ALFREDO FARACE in the *Nuova Antologia*, Rome, No. 1085, 1 April 1917.

(2) We would cite in particular the *Colonia Agricola Provinciale del Foresta*. This arose by the initiative of the provincial administration of Mantua which placed at the colony's disposal a holding of 37 hectares (1 hectare = 2.47 acres), and a fund of 100,000 liras, which the communes and the local bodies were called upon to form. See in this connection *Gli orfani contadini*, the monthly bulletin of the *Opera nazionale*, Rome, no. 1, 15 January 1917. Recently the *Colonia Agricola Vicentina* has also been formed with a capital of 514,000 liras arising partly out of unsolicited private contributions. See in this connection *L'Agricoltura Vicentina*, No. 2, 31 January 1917.

least 10 liras a year ; b) perpetual members who make one payment of at least 100 liras ; c) members of merit who make an annual grant to the agency of at least 300 liras. The administration belongs to a directing council which has fifteen members.

* * *

4. A PROVINCIAL LABOUR OFFICE AT ROME.

On 25 February 1916 the provincial council of Rome resolved to institute a provincial labour office, and charged a special commission to draw up the necessary rules. These rules, which have been approved, define the following as the aims of the new office : the study of the various manifestations of the economic, agricultural and industrial life of the province and the compilation of relevant statistics ; the study and regulation of the displacement of the rural population with a view to facilitating the allocation of labour ; the observation, in the interest of labour, of the phenomena of labour and relative legislative measures, with a view to taking any action which may be demanded ; the study of the conditions of hygiene enjoyed by the labouring classes, both urban and rural, with a view to promoting measures fitted to combat the diseases which attack them ; co-operation in the progressive improvement of labour, technical and economic, and encouragement of the adoption of contracts better fitted to the special conditions of the different districts ; conciliatory action when controversies arise between employers and labourers, especially where *usi civici* are concerned, and intervention by arbitration at the request of the conflicting parties ; the promotion of direct grants of land for cultivation ; vigilance for the observation and application of laws for improvements ; and finally vigilance for the observation of labour legislation.

In exercising its functions this office will co-ordinate its efforts with those of the National Office and the Communal Office of Labour.

RUSSIA.

1. GOVERNMENT AID TO HOME INDUSTRY. Правительственный Вѣстник (Government Messenger) No. 231, 20 October-11 November 1916, Petrograd.

Home industries, called in Russian *Kustárnoje proiswódstwo* (KUST = shrub, bush), have spread chiefly over the middle and northern districts of the Russian kingdom, those governments namely of which the soil is not black earth — Moscow, Tvjer, Tula, Nishni-Novgord, Vjatka etc : — and are practised by the peasants either as accessories to farming or as independent callings. They include a whole series of different and numerous forms of production : woodwork and skilled woodcutting ;

the production of linen, silk, laces and cotton; the production of fur, leatherwork, metalwork, the production of fancy articles, work in horn, pottery etc.

Present circumstances have brought certain of these industries more or less into the foreground and somewhat overshadowed others, thus adjusting all of them to the present demands of the country. The total value of the articles annually produced by home industry is about two thousand million roubles (1) and is therefore a very important element in Russian political economy.

Home industry is in Russia as ancient as agriculture, but it became an object of State care only in the seventieth year of last century, when a special commission for its study was established in the Council of Trade and Industry.

In 1888 the regulation of home industry was subjected to the supreme authority of the Ministry of the State Domains; and in 1894 to that of the reorganized Ministry of Agriculture, where a committee for home industry was called into being as part of the lately founded *Section for Agriculture and Agricultural Statistics*. This supreme authority is very notably supported by the public corporations — the zemstvos, the agricultural societies and the local committees established in various places.

The annual grants of the government to home industry have reached considerable sums of late years, as appears from the following figures :

Year	Roubles
1888.	30,000
1903.	100,000
1909.	492,415
1910.	773,547
1911.	1,045,826
1916.	2,429,699

For 1917 the Ministry of Agriculture is asked to give 2,459,734 roubles.

The raising of the standard of the technique of production by home industry and its development form a constant aim: trade and industrial schools are founded; large workshops are set up; courses of instruction are given; museums are established; and exhibitions are held. In 1912 there were 120 such exhibitions. The admission to the all-Russian exhibitions held in Petrograd in 1902 and 1913 was of particular interest. The formation of co-operative societies for collective supply and marketing among those engaged in home industries, the *Kustari*, is also forwarded by the Section for Agriculture and Agricultural Statistics.

In order to render possible the marketing of the products of home industry abroad, a representative of the section was sent with specimens of these products to the United States at the end of 1915. Already orders

(1) 1 rouble = about 2s. 1 $\frac{1}{2}$ d. at par.

have come from America for articles of an artistic kind produced by home industry, and a connection has successfully been made with two large American firms which have undertaken to market and to popularize goods so produced. In the spring of 1916 the section sent samples of them to the Lyons market, with most fruitful results. An important future market has thus been certainly secured.

In the course of years an office of intelligence and information is to be established in Petrograd, where collections of samples and illustrated catalogues will be found, and where all the conditions of the trade and other information regarding home industry will be communicated to those interested. It is also considered necessary to found in Paris a depository of specimen articles in which direct orders will be taken. Everything promises that such a depository will have a practically certain commercial success. The experience gained in Paris will lead to the formation of a scientifically organized market in England, in which only the articles for which there is a demand will be supplied. So soon as this organization of markets begins to develop on the right lines, indicated by the government department, the supreme authority will leave the further conduct of the enterprise to the zemstvos, who will develop still more the market for the articles produced and trace new paths for home industry.

* * *

2. THE SETTLEMENT OF KIRGHIZ NOMADS ON THE STEPPES OF TURKESTAN.
— Извѣстія Земскаго Отдѣла (*Bulletin of the Division of the Zemstvos*), No. 10, October, 1916, Petrograd.

Since the colonization of districts of Central Asia with settlers from European Russia has progressed, and railways have ensured the country's economic development, the Kirghiz — once the sole inhabitants of the vast regions of Turkestan — have little by little begun to abandon their nomadic life and settle down on the soil.

Migration having been rendered more difficult by the establishment of the Russian colonies, the Kirghiz learnt how to till and cultivate the soil from the colonists and were converted to faith in the advantages of agriculture. First owners of tents and then whole villages asked the authorities to assign to them in full ownership clearly determined lots of agricultural land, to be held by the same legal forms as those of the Russian colonists. Consequently in 1908 the Council of Ministers decided to organize the lands to be colonized in Turkestan so that they might be available not only for Russian colonists but also for the Kirghiz, and to give equal rights to the two peoples.

This measure was at first adopted only in the district of Cokcetavsc in the province of Acmolinsc, but its application was extended on 8 June 1909 to the other provinces of Turkestan.

The lots were allocated by a special office within the Ministry of Agriculture and by temporary commissions on which the leaders of the peasants and of the Kirghiz were represented. A grant to one man might not be of more than fifteen deciatines (1) of land admitting of cultivation.

734 allotments had been made on 31 December 1915 of a total area of 3,350,226 deciatines, of which 2,133,338 deciatines admitted of cultivation. On the land so granted 174,363 Kirghiz men — or 8 per cent. of the male Kirghiz nomad population — had been settled.

SWEDEN.

THE AGRICULTURAL LABOUR SUPPLY IN 1915. — *Sveriges Officiella Statistik: Arbetartillgång, arbetstid och arbetslön inom Sveriges jordbruk år 1915* (Swedish Official Statistics: The Labour Supply in relation to the Need and Duration of Work and to Wages in Swedish Agriculture in 1915) Stockholm, 1916.

The official enquiry as to the relation between the labour supply, and wages and the duration of the working day in Swedish agriculture in 1915 followed the same plan as in 1914, and made use of similar documents, namely fairly detailed forms of questions which were filled up by the presidents of communal assemblies in 2,206 rural communes, that is in 94.4 per cent. of those comprised by the enquiry.

The first question on these forms concerned the proportions of the labour supply in each rural commune. The answer should have been a general estimate, and should have indicated whether the agricultural labourers domiciled in the place, or returning to it regularly, would ensure sufficient labour for all the coming agricultural operations. The material collected shows that in 194 of the communes making returns, that is in 8.8 per cent. of them, the labour supply was good, in 1,485 or 67.3 per cent. of them it was sufficient and in 513 or 23.3 per cent. insufficient, while 14 or 0.6 per cent of them thought themselves unable to answer with certainty. As compared with those of the previous year these figures show a slight diminution in the proportions of the labour-supply — evidently due to the fact that the industrial depression produced after the outbreak of war in the autumn of 1914, which caused the supply of labour on the agricultural market to be abundant, has, it seems, gradually ceased to be felt.

The proportions of the labour supply in the various districts were very different. But the figures which indicate the number of communes in the different departments in which the labour supply was inadequate do not allow certain conclusions to be made as to the greater or less number of labourers in each department in relation to the cultivated area. What is above all reflected in these figures is the greater or less progress of agricultural organization in different places, and the greater or less abil-

(1) 1 deciatine = 2.69 acres.

ity of the employers to reduce work by using machinery and means of transport, and to make shift with the labour at their disposal by generally economical farming.

The information given as to the hours and division of labour concerns only the working-day in agriculture proper, that is to say field-work, work in barns and on threshing-floors, etc.; and does not apply to persons tending beasts, who have a considerably longer working day, chiefly passed in stables and byres.

Further as regards agriculture proper the figures supplied concern only the hours of work in summer, this word being taken in the question-form to cover the full agricultural season, that is the three summer months in which labour generally begins earliest and ends latest. As the days shorten the duration of the agricultural working day gradually lessens until it has come to be less by several hours than in summer.

The gross average length of a summer working-day in the whole country, that is to say the day including intervals for rest, is twelve hours and a half; that of the intervals is two hours and twelve minutes; and the average net working day is therefore one of ten hours and eighteen minutes. During the five years during which enquiries as to agricultural labourers have been made, it has been impossible to ascertain what changes in these conditions are due to the whole organization of agricultural labour and therefore more or less constant.

The duration and division of labour differ in the various parts of the country. If its net duration be principally considered it is seen that there are in Sweden three zones in which this is less than or equal to the average ascertained for the whole country; the zone, namely, which comprises the three departments (*län*) of Southern Sweden and the department of Kalmar, the zone formed by the departments of Gothenburg and Bohus, and that which comprises the large district of Central Sweden, extending inclusively from the department of Kopparberg to that of East Gothland. In the rest of the country the working day is relatively long.

The usual price of labour differs much with districts. Taking the country as a whole, however, the case, is as follows:

As regards the class of labourers most important to agriculture on a small scale — unmarried men and women permanently employed — the payment consists in annual money wages and food and lodging. The amount of these several forms of remuneration varies greatly with districts but the average for the whole country of the annual wage of a serving man is 343 crowns (1) in money, his food is valued at 412 crowns or 1.13 crowns a day, and his total wage is therefore 755 crowns a year. For a woman the correspondent averages are 212 crowns, 335 crowns (0.92 crowns a day) and 547 crowns. Especially in Norrand clothes are also given and their value is sometimes considerable.

Labourers who are generally married, and who under the name of *statare* (agricultural labourers receiving mixed wages) work on the large

(1) 1 Swedish crown of gold = about 1 s. 1 1/4 d. at par.

properties in the agricultural districts properly so-called, receive, in addition to their annual wages averaging 346 crowns, a payment in kind called *stat*, which consists of milk, corn, potatoes, etc., and they are lodged together with their families; so that the average return they receive for their work is 883 crowns a year, according to the estimate of those who have furnished these data. The figure comprises the value of a free cottage, which in South Sweden generally has two rooms and a kitchen and in the rest of the country a single room. The average value of such lodging is estimated at 68 crowns and that of free fuel at 53 crowns. These data do not however concern the ordinary ploughmen. The labourers who tend live stock receive larger money wages and sometimes also larger wages in kind, so that their annual earnings are placed at 939 crowns.

Besides these labourers receiving mixed wages (*statare*) there are journeymen workmen permanently employed, who are paid entirely or almost entirely in money and whose daily wage varies much with districts. Its average amount is 2.72 crowns in summer and 2.07 crowns in winter, but is less by the average sums of 0.84 crowns and 0.76 crowns in these respective seasons, if the workman be fed by his employer.

Besides these journeymen workmen, habitually engaged for a year or at least for six months by one employer, there are agricultural labourers who take work now for one and now for another, according to the needs of the moment. In summer the daily wage of one of these casual labourers averages 3.13 crowns, in winter 2.34 crowns, if he find his own food. If he be fed by his employer he is paid on an average 2.18 crowns in summer and 1.55 crowns in winter.

Among the workpeople paid by the day there are also a large number of women, who help in beetroot and potato-growing, in the hay and corn harvest, etc. They receive on an average 1.71 crowns for a summer day's work, or 1.16 crowns with food, if they are considered as part of the farm's fixed staff. For casual work they receive a little more, namely on an average for the whole country 1.87 crowns without and 1.29 crowns with food. In the winter months their wages diminish markedly as do also those of the men in the same category.

A general comparison between wages in 1915 and in the years from 1911 to 1914 — if men tending live stock and receiving mixed wages, whose pay owing to their remuneration in kind remains almost stationary, be excepted — shows that wages of agricultural labourers of all categories increased by from 3.3 to 6.5 per cent, in 1914-1915, by from 5.2 to 10.1 per cent. in the years from 1913 to 1915 and by from 10.2 to 18.1 per cent. in those from 1911 to 1915. The increase seems to have been particularly marked in the case of the journeymen and the women employed permanently. On the other hand if total remuneration in money and kind be considered the greatest increase is seen to have been in the case of the labourers receiving mixed wages (*statare*) and the other agricultural labourers who are paid chiefly in products in kind, for the price of most provisions has risen considerably owing to the international crisis. Thus in 1914-1915 the value of wages in kind rose by about 13 per cent. and

from 1913 to 1915 by 37 per cent, which makes the increase in the value of the total wages of the *statare* labourers 9 per cent in 1914-1915 and 23 per cent, from 1913 to 1915. Compared therefore with the journeymen or with industrial workers they were much better paid than in the previous year.

UNITED STATES.

LAND SETTLEMENT IN CALIFORNIA.

The progress of land settlement in California is revealed by a report lately rendered by the Commission on Land Colonization and Rural Credits.

California has had no State land policy. The subdivision of land for settlers, the character of the settlers, the kind of agriculture and the conditions of purchase of land have all been left to unregulated private enterprise. There has been neither public control of the selection of colonists, to insure their being effective agents of rural development, nor public scrutiny of the soil and conditions of purchase, to render it certain that colonists find an opportunity rather than a temptation.

The State has an immense area of fertile and unpeopled land, only 11,000,000 acres out of the 28,000,000 acres of farm land being cultivated. Yet comparatively few settlers are going to the country and many who have arrived in recent years have left. Neither costly advertising nor still more costly personal solicitation has served to attract colonists. Progress in the country has not kept pace with progress in the towns; for in the five years from 1910 to 1915 the gain in population of Californian cities and towns was three times that of the country.

The principal causes of the arrested development seem to be the high prices of land, the high rates of interest and the short terms for payment given in colonization contracts. Under these contracts it is practically impossible to earn the money required to pay for a farm in the time usually given. Many also complain that opportunities have been so exaggerated and the expenses of developing a farm so minimized, that settlers have been induced to undertake what on trial has proved to be impossible.

It is to the interest of the whole State that its fertile lands should be cultivated and active colonization promoted. A large share of the meat consumed and many other farm products are now bought abroad; and increased production would lessen the cost of living and keep at home money now sent out of the country to pay for food. Moreover the great properties which are owned by non-residents and cultivated by tenants or by nomadic and unsatisfactory hired labour ought to be subdivided and cultivated by residents. From statistics furnished by the tax commissioner it appears that 310 landed proprietors own over 4,000,000 acres of land suitable to intensive cultivation and capable of supporting a dense population. This land would make 10,000 forty-acre farms. One firm owns

nearly 1,000,000 acres ; one railroad owns 500,000 acres ; in Kern county 1,000,000 acres — or more than half all the land in private ownership — are owned by four companies. The evils of such ownership are every year becoming more apparent. At one end of the social scale there are a few rich men who as a rule do not live on their estates, at the other a shifting body of farm labourers or a farm tenantry, made up largely of aliens and taking small interest in the progress of the community. The interests of political stability, of agriculture and of society require that this inheritance from a Mexican land system and from former land laws of the United States be abolished.

In California settlers have to pay for farms in periods of from three to ten years, while in other countries periods of from thirty to seventy-five years have been found necessary. Consequently a settler without a large cash capital or some income from another source has not been able to buy a farm. The Commissioners did not discover a single instance of a settler who brought with him only the limited capital required by State systems in other countries and was able to pay for his land within the time agreed upon in his contract.

The experience of practically every colonization company, no matter how successful, has been that it would have been better for both the settler and the company if the original enterprise had been organized on a financial basis giving the settler more money for improvements and a longer time in which to pay for his farm.

Dealers in real estate flocked from the overdone and less profitable fields of the Middle West, not to develop agriculture in California but to exploit it. It was the paradise of the boomer because it stands alone as regards rural advantages and attractions : in no other State can such a wide range of products or so many highly priced products be grown ; no other State affords the farmer or fruit grower an equal opportunity to exercise intelligence and scientific knowledge in planning his work.

But more is necessary for good results than a subdivision of farms and an inflation of land prices. Not every man is suited to becoming an orange grower or has the habits of careful thoroughness needed in intensive agriculture of any kind. To create communities like Redlands in the south or the Santa Clara Valley in the north workers of superior intelligence are required. If they be not already trained they must be willing to undergo apprenticeship in a most exacting form of agriculture which makes far greater demands on knowledge and skill than do the fertile corn and wheat growing States of the Middle West.

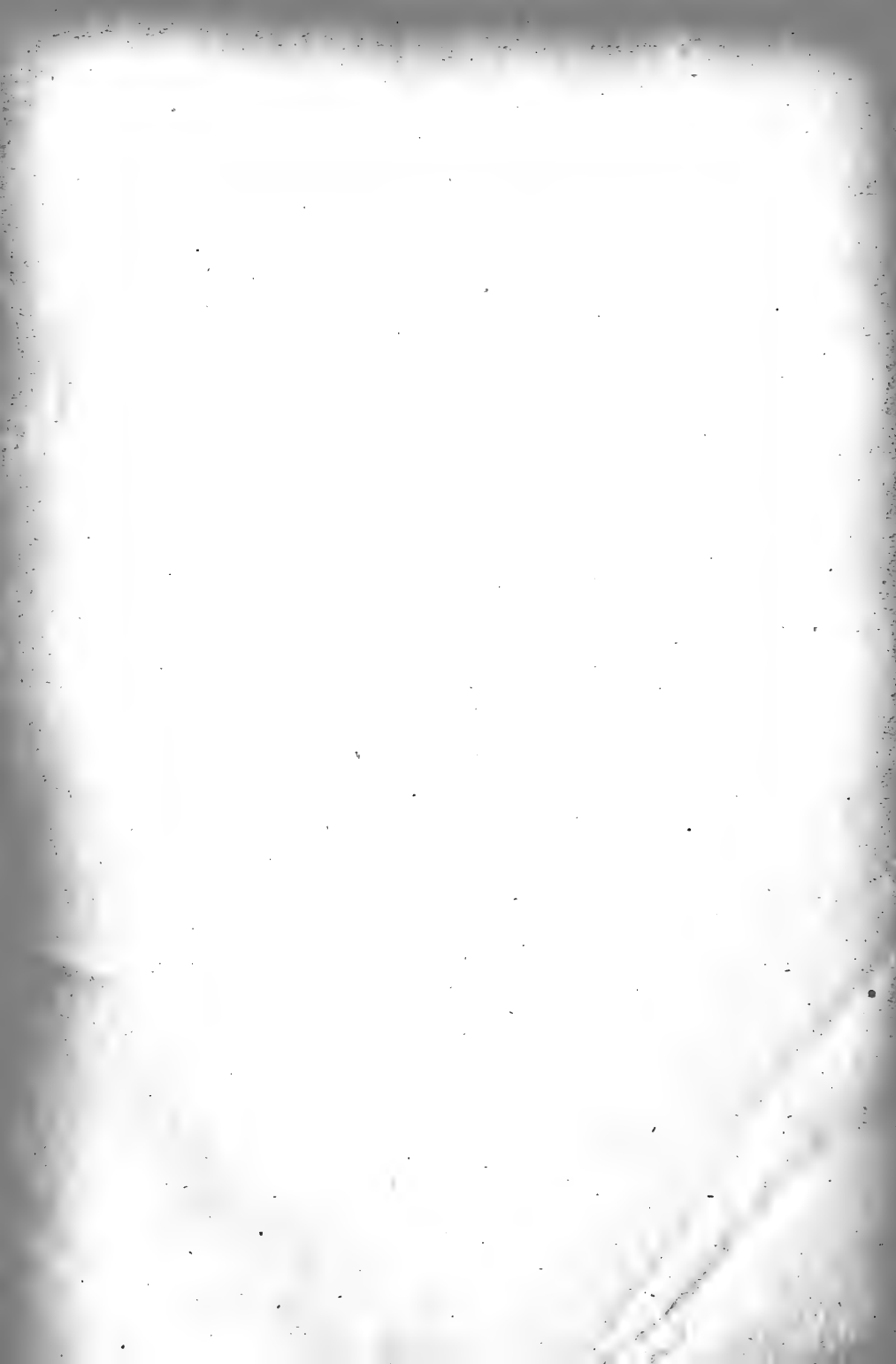
The best results in California can only be secured when colonization is carried out in accordance with carefully thought out plans, aimed at the creation of a definite form of agriculture or horticulture. This fact was not recognized by the speculative colonizing agent, who gave no more thought to the welfare of the community or the ultimate results of his enterprise than he would have done had he been buying or selling grain or coal. Land was to him merchandise to be bought at the cheapest price and sold for as much money as the settler could be induced to pay.

Relatively few of the men engaged in this business were knowingly dishonest but the majority of them were unthinking and ignorant. They did not know, and apparently did not care to know, how settlers were to obtain money to improve and equip the farms sold to them or how they were to earn a living income. The prosperity of the settler was his own affair. The land agent's business was to make money out of him rather than to make money for him.

An instance of the extent to which the land agent inflated prices is the case of a wheat ranch which was bought for seven dollars an acre. The buyer organized a syndicate composed of himself and his typist to which he sold the land for \$100 an acre. Then as a syndicate he subdivided it and sold it to settlers for \$200 an acre. No settler who paid this outrageous price could earn either its amount or the interest on it out of the soil. Yet sales of this character were made with ease. In part this was due to the fact that many of the buyers were also speculators. They were given evidence that land bought for seven dollars an acre was selling for \$200 an acre; the prediction was made — and did not seem incredible — that next year it would sell for \$400 an acre. The air was full of stories of the millions made by subdividing land.

This speculative colonization, which began about 1900 and culminated about fifteen years later, has now run its course. It worked infinite harm to many honest and industrious but over-sanguine and credulous settlers. It interrupted and changed the conservative and successful development which was in process when it began. It has enabled non-resident speculators to take away from the State millions of dollars as the profits of the unwarranted inflation of prices; and it has caused or will cause anxiety and heavy losses to many landowners who depend on the paying off of mortgages by settlers having neither capital nor experience. A legacy of high land prices has been left to the State; and it threatens to be a heavy economic burden, for practical and experienced farmers will not come to California if land of equal productive value in other States be cheaper.





(c) Publications of the Bureau of Agricultural Intelligence and Plant Diseases.

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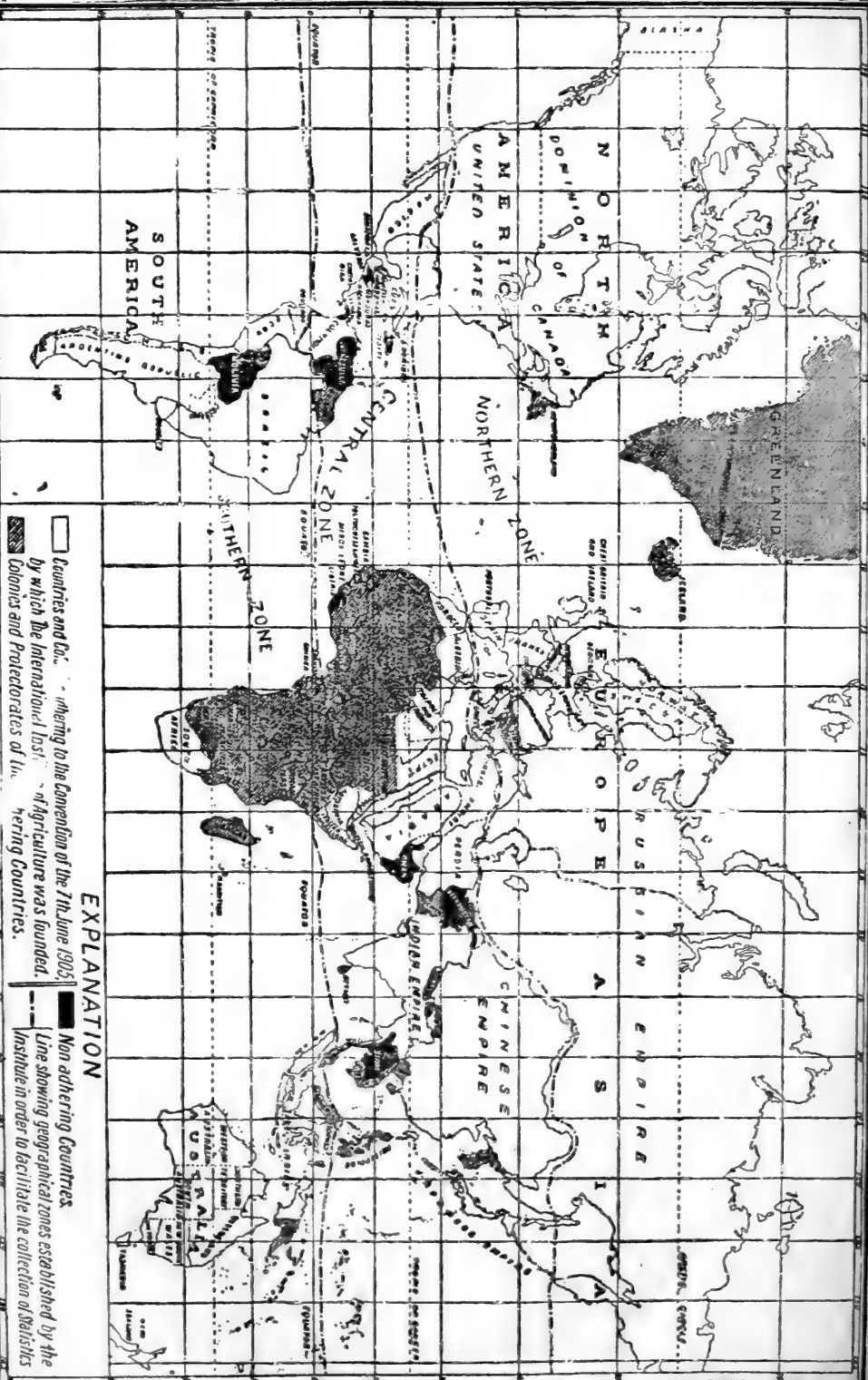
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BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

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(MONTHLY BULLETIN OF ECONOMIC
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VOLUME LXXVII.
8TH. YEAR: NUMBER 5
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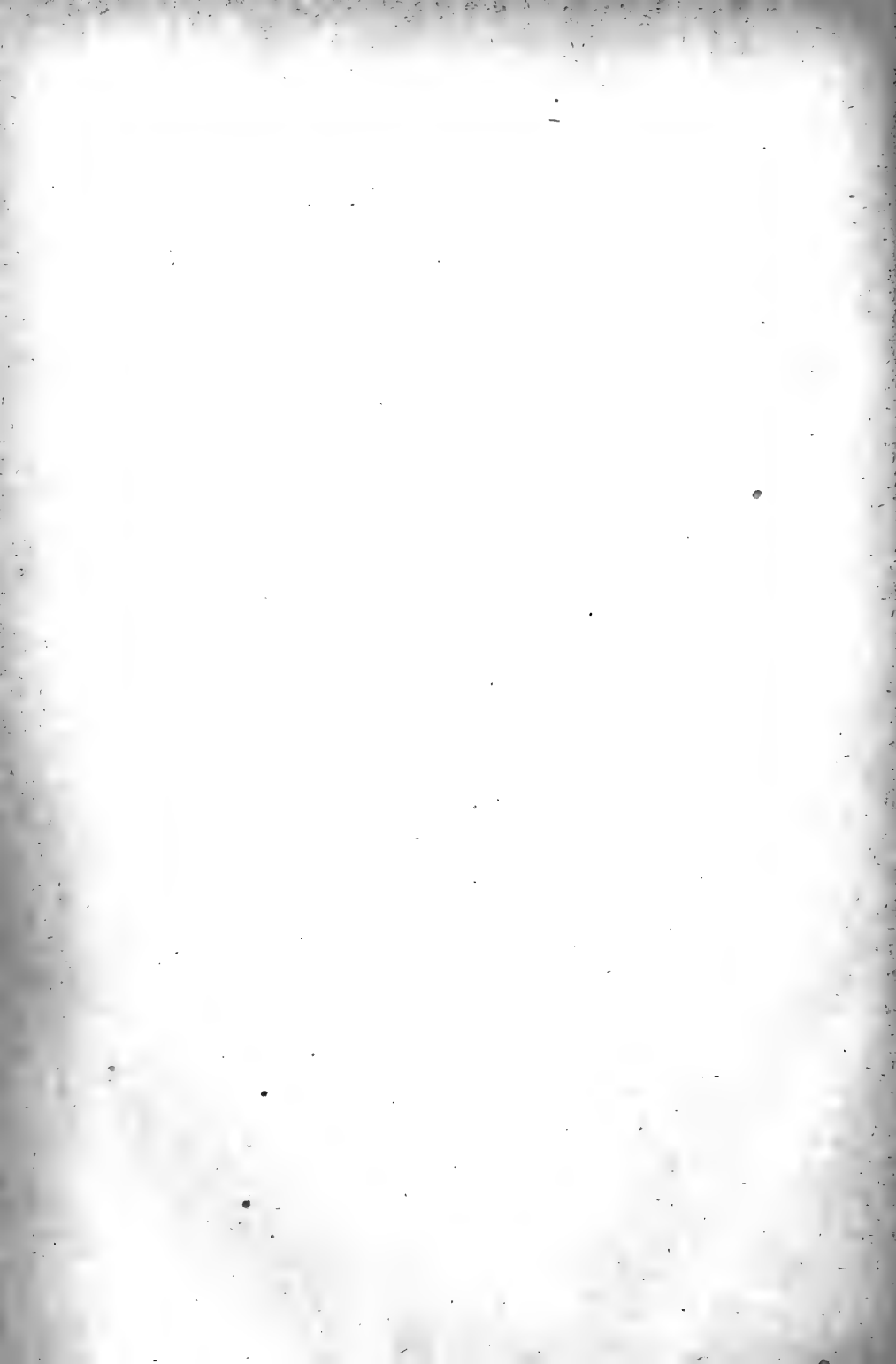
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Part I: Co-operation and Association

BELGIUM.

THE ACTIVITY OF THE BELGIAN "BOERENBOND" IN 1915.

SOURCE:

BOERENBOND BELGE OU LIGUE DES PAYSANS (*Belgian Boerenbond or Peasants' League*).
Short report presented to the general assembly on 12 June 1916 by Canon Luytgaerens,
general secretary.

The powerful organism constituted by the Peasants' League has not interrupted its labours during the German occupation, as we will prove, rapidly sketching its work in 1915.

Speaking generally it is true that everything founded by the *Boerenbond* before the war has survived, and moreover new plans have been realized. Thus the general secretary's report notes the organization of two new agricultural gilds, one in the province of Antwerp, two in Brabant and one in East Flanders. Means of communication had hardly been re-established, in the last months of 1914, when the league's inspectors began once more to travel about the country in order to visit the rural associations and to co-operate, in the words of the report, "in reviving social and economic life in the rural districts". They were entrusted at the same time with the additional duty of collecting information and noting the most urgent needs in order to enable a directing committee to organize committees for relief and nourishment everywhere. Further as soon as it was possible the *Boerenbond*, in agreement with some influential personages in the agricultural world, undertook the defence of the interests of tillers of the soil and participated in the formation of an agricultural section of the national committee for relief and nourishment which came into being at the end of December 1914. Two of its administrators are members of this section and have taken a large part in all its work. The co-operative society, *Agricultural Assistance*, which aims at buying food for live stock and all supplies indispensable to agriculture, was founded towards the end of February; and a delegate of the *Boerenbond* is on its administrative council.

"It was not however enough to create an agricultural section for the

whole country: it was necessary also to consider agricultural interests in the different provinces. The want was best supplied by founding in each of them an agricultural sub-section, having an autonomous existence. This was done in the provinces of Brabant, Antwerp and Limbourg among others. The *Boerenbond* had its share in the formation of these three sections, within which it is represented by its delegates".

Until the *Agricultural Assistance* should be able to maintain agriculture with foodstuffs, manures and primary material of every kind, the *Boerenbond* itself undertook to fulfil this task and to reduce to the minimum the difficulties which the agricultural world had to meet.

"The *Boerenbond* — or more accurately its counter for sale and purchase — bought in the first place, for the provinces of Antwerp and Brabant, the food for live stock which the German civil administration granted, at the first distribution, to agriculture in these two provinces, and remitted the food to the agricultural sections. Had there been opportunity it would have been equally zealous to render this service to the other provinces. Soon afterwards it took over from the German civil administration a sufficiently important quantity of linen oilcakes of which it afterwards made grants in accordance with the instructions of the national agricultural section.

"In agreement with the latter it made a bargain with the *Drogueries et Huileries anversoises* for 2,500 tons of arachis and sesamum oilcakes which were distributed among all the provinces, but did not reach their destination until long afterwards because part of the merchandise was being manufactured at the time of purchase and because the formalities required for its liberation were retarded.

"Hitherto no concentrated food whatever had crossed the frontier. Moved by the distress of agriculture the *Boerenbond* did everything possible to remedy the situation. In the course of February it was at its own request commissioned by the *Agricultural Assistance* to send a delegate to Holland to treat for the purchase and importation of 4,000 tons of linen oilcakes. This was a delicate mission but after many difficulties it was satisfactorily concluded.

"These were the only edible oilcakes imported in 1915 in addition to the unimportant quantity bought in Holland in December 1914 by the representatives of the *Boerenbond*".

Thanks to these efforts Belgian agriculturists were more or less provided with various products with which to meet the difficulties in the way of feeding live stock. The *Boerenbond* then turned its attention to procuring manures.

As early as the spring of 1915 all chemical manures had been seized by the German administration. The *Boerenbond* negotiated and obtained for its members some tons of superphosphates and guano and small quantities of scoria.

It was however even more difficult to encounter the consequences of the seizure of harvests. The *Boerenbond* gave every care to regulating this matter in the best interests of its members.

"As early as the first fortnight of July the *Boerenbond* had occasion to

formulate its desires to the German civil administration. It proposed tariffs in harmony with the general situation, giving prices at which the cultivators should themselves buy the goods they needed; and it asked that they should be allowed to retain such quantities of grain as were reasonably necessary for household and farming purposes. In this way it claimed 1000 kilogrammes (1) of oats for each horse, and in this at least obtained satisfaction since the decree ordered an allowance of two and a half kilogrammes a day or 920 kilogrammes in all. Later this quantity was notably diminished.

"For the rest, the allowance of rye for every head of horned cattle was, as is known, fixed at seven and a half kilogrammes a month or a total of ninety kilogrammes — an entirely insufficient amount.

"As regards food for the people the allowance of wheat was 340 grammes (2) a day for each person, but producers of rye might retain only a third of this amount of rye, being allowed to buy the other two thirds of their ration in wheat from the committees.

"The authorization to reserve ninety kilogrammes of rye for a head of cattle was a concession, however slight; that of utilizing this quantity at pleasure, instead of being obliged to keep one twelfth for every month until the next harvest, was another; and finally producers of rye were allowed to take out two thirds of their ration in rye. In spite of our most persistent efforts it was impossible to obtain more.

"Although here again results have not been quite equal to expectation we cannot regret having done our duty. Our guilds, which have seen their efforts partially fail on some occasions, should also argue thus, and should rejoice with us in the least success. The position of our cultivators would, without our and their intervention, have been far worse in many respects".

Thus new difficulties, affecting agriculture and the rural population, arose at every moment. The regulation of the sale of potatoes, the acquisition of seeds and plants, the struggle against the unrestrainedly audacious adulteration of foods for live stock and of manures, the efforts to obtain subsidies for the reinsurance of cattle and horses, the intervention of unemployment funds in favour of unemployed workpeople — these and others were so many problems which the *Boerenbond* attempted to solve, multiplying all the necessary procedure in relation to the civil and the military authorities. Not the least arduous task was that of helping small cultivators in the districts which have suffered most from the war. To estimate damages, to combat the discouragement of the poor peasants whom the war had ruined, to draw up plans for bringing lands under cultivation and resuming the tith of abandoned lands, to organize a system of small loans which would particularly favour those most tried, to collaborate in fact in every possible way in the resumption of work and life on this countryside ravaged by the war — this has been the essential aim which the various sections and the

(1) 1 kilogramme = 2.2 lbs.

(2) 1 gramme = 0.564 drams.

directing committee have laboriously pursued. No consideration, including regard for hygiene, has failed to influence the association's conduct and to contribute to the efforts to reconstruct destroyed villages and farms.

"We have made a point," says the report, "of rendering yet another service to the country people who were obliged to reconstruct their houses or farms. We wished to make them understand that in building it is easy for them to observe the rules of comfort and primary notions of hygiene without any consequent increase of expense. There are already in the country too many insanitary dwelling and too many farms constructed in defiance of the rules of good sense.

"A commission was nominated and it prepared in the two languages, French and Flemish, a small pamphlet, which was especially the work of Messrs. J. Giele and G. Van den Abeele and is called *Construction de l'habitation rurale et de ses dependances* (*Construction of a Rural Dwelling and its Dependencies*).

"This is a collection, as concise as possible, of explanations and practical advice on the choice and use of materials, dimensions, the distribution of space, airing and ventilation, the means of obtaining good drinking water, of guarding against damp, etc. The pamphlet is written very simply so as to be within the comprehension of all.

"The Special Commission for the Reconstruction of Farms, Rural Dwellings and Villages, created within the National Agricultural Section, wished to collaborate with us. We acceded very willingly to such request and in January the pamphlet was published under the auspices of this commission and of the *Boerenbond*.

"A copy was sent to each of our guilds and others were distributed by the care of the special commission.

"This was a first and an interesting attempt at rebuilding on our countryside. The special commission and its provincial sections continued to study the problem actively. May their efforts result in an embellishment of our villages and in procuring truly improved dwellings for our husbandmen!"

So much as to the league's general activity. As regards the particular activity of each of the organisms within its framework, this has been no less fruitful; and we wish we could mention all that has been accomplished by the parochial guilds, the farmwives' circles, the federations of horticulturists, the counter for sale and purchase, the inspectorate of milk, the central credit fund and the insurance section. But necessarily our remarks must be limited and we will only give some figures.

We will take first the Farmwives' League. This was not only increased in 1915 by four new circles, which grouped altogether 463 members, but it has constantly kept in touch with the bodies affiliated to it, has multiplied lectures and local meetings, and has been prodigal of practical advice and instruction to its members, thus stimulating the zeal of all and giving a direction to their activity.

"The problem of feeding the people, which has so great a practical interest for women, has preoccupied the Farmwives' League to the highest

degree. It was to be feared that the population would be fed only insufficiently; for a large quantity of articles of food, all of which seemed to be of the first necessity, had been completely exhausted or had become extremely scarce. It was therefore necessary to teach our farmwives to employ the products of their farms and fields more rationally and to utilize food supplies imported from abroad. To realize this programme it was necessary to give lectures, distribute pamphlets, etc.

"The league lost no time in sending to each of its circles two copies of the tract prepared by Messrs. Giele et Van den Abeele, *Quelques conseils sur l'alimentation humaine, l'élevage et la culture des plantes* (Some Advice on Human Diet, the Growth and Culture of Plants); and soon afterwards it distributed leaflets containing recipes and practical advice on human diet.

"In February the Central Commission of Alimentary Economy was formed at Brussels, and it soon founded sections in the different provinces. From the beginning the Farmwives' League was represented on it. The chief aim of the commission was to arrange for lectures on economical diet. The league's secretary was active in the matter, especially in the province of Antwerp. Mlle. Marie Lemaire, who represents the league on the Commission of Alimentary Economy, takes charge of the organization of lectures in the arrondissement of Louvain and the canton of Vilvorde.

"At Tirlemont, Aerschot, Diest, Vilvorde, Erps-Guerbs, Haecht, Vossem, Huldenberg, Louvain and Léau meetings took place to which all local schoolmistresses and others who might be useful were invited. An initial lecture on economical feeding was given, with a practical demonstration in the shape of the preparation of some cheap and substantial meals, and the audience were begged to disseminate the ideas they received as much as possible among housewives of the people. Thus lectures on diet were soon held in every village; and the numerous reports sent to us are proof of multiple efforts in these districts to improve the popular diet.

"In order to facilitate the task of the lecturers the league, together with the provincial Commission of Alimentary Economy, published for them a *Lecturers' Vade Mecum*, of which it sent two copies to each of its circles.

"The old peripatetic school of agricultural housekeeping, which used to spend three or four consecutive months in one village, gave place in 1915 to an eight days' course of domestic economy. This consists especially in practical cooking lessons. Owing to the league's intervention more than one farmwives' circle has asked for and obtained this course, and the members have derived much profit from it. There were even some small villages in which the school was obliged to extend its courses over two or three weeks in order to satisfy all demands."

On the other hand we find mention, under the heading *Federation of Horticulturists*, of lectures and lessons in vegetable growing; of numerous collective sales on behalf of the members, bringing in a total sum of 42,260 francs; and of provision of vegetable seeds costing altogether 5,176 francs.

The balance-sheet of the counter for purchase and sale gives the following figures:

Number of orders executed	361	
Circulating funds	2,967,987	francs
Namely {	Receipts	1,489,881 "
	Expenditure	1,478,106 "
Turnover	6,205,930	"

The inspectorate of dairies was obliged on the other hand to confine its action to the provinces of Antwerp, Brabant and Limbourg, in which seventy-eight co-operative societies are at work, only seven having interrupted their activity since the opening of hostilities. A certain slackening of business, due to the diminution in membership and also in the number of cows and the quantity of milk dealt with, has however been noted. Thus in the sixty-one dairies, as to which it has been possible to obtain precise data, the number of members is said to have been lowered by 10 per cent. and that of registered animals by 16 per cent. since 1913. The cows have moreover given less milk, a natural consequence of the famine in concentrated foods. Therefore while in 1913 the average quantity of milk supplied daily was 7.165 kilogrammes a cow in 1915 it was 5.910 kilogrammes, giving a decrease of 18 per cent. Nevertheless 29,108,440 kilogrammes were dealt with in the dairies visited and 1,024,074 kilogrammes of butter manufactured.

One of the association's most active branches has been indisputably the *Central Credit Fund*.

The year 1915 was, says the report, one of the most important years it has had since its foundation. Not only was the number of affiliated local funds increased by forty-four but the savings deposits were more numerous than ever and hundreds of new small loans were made to cultivators in needy circumstances. Of 821 rural funds existing in Belgium at the end of 1915, 437 were affiliated to the central fund. At this date the number of the latter's subscribed shares was 8,987, having increased by 420 since the preceding year. The capital in shares was thus brought up to 8,987,000 francs. The funds circulated in the year amounted to 63,009,921 francs, thus considerably surpassing their ordinary level. Twenty-one new credit accounts were opened for affiliated funds, the total credit thus accorded being for 363,550 francs, which brought the amount of the credit in force on 31 December 1915 to 4,904,450 francs. The total of the savings deposits was 22,723,841 francs, having increased by 6,202,311 francs since 1914 and by 6,613,469 since 1913, the last normal year.

" This considerable increase in the amount of savings deposits in the second year of the war is partly explained by the fact that cultivators have had partially to realize their invested capital. It was impossible for them to procure the desired quantities of manures for their fields and of concentrated food for their live stock. Thanks to the reserves of fertilizing substances preserved in the soil they had generally very satisfactory harvests, and therefore had more liquid cash in hand than usual, but this was to the detriment of the wealth of the soil. They fed their live stock as they could, having no choice but to avoid the expense of purchasing the concentrated

foods usually on the market ; but the value of their stock was diminished in consequence, and the animals of which they got rid were seldom or never replaced. Analogous circumstances ruled in other branches of their farming. In a word husbandmen disposed of relatively large sums of money but the fact was not always advantageous to them.

What were they to do with these savings? Where could they invest them well, when banks and financial establishments were constantly lowering their rate of interest, and were as much as possible avoiding the acceptance of payments, owing to the superabundance of money? The husbandmen turned to the savings and credit funds. These enjoyed their confidence, and were able further, because they were affiliated to the central fund, to continue to pay interest at the rate of 3 per cent., which was in existing circumstances extraordinarily profitable for the deposits in question. It goes without saying that the fund was obliged, in order to continue these terms, to be very circumspect and to be guided not by desire for gain but by a wish to render service to the husbandmen".

Loans on land numbered twenty-seven and were of a total sum of 115,400 francs. There is further a new system of loans, particularly advantageous to the husbandmen precariously situated owing to present circumstances, and known as *small credit*, and it gave excellent results. It is as follows :

" A loan may not surpass 600 francs and is repayable in annual instalments in five years, unless the borrower formally express a desire to have this term extended to seven years, in which case he is held, during the first two years, only to the payment of the interest, which is at the rate of 2 per cent. a year.

" If as a consequence of the war the object bought with the borrowed money is destroyed wholly or partially, the debt is remitted *pro rata*, according to the loss incurred, but the borrower must prove the loss.

" He must find a third person as his surety.

" Loans are granted to countrypeople in needy circumstances, especially such as have suffered loss by the war. At first these conditions were interpreted fairly liberally, but later loans were made exclusively to persons within the following categories :

1. Husbandmen who have incurred certain definite losses by the war and the families deprived of their support.

2. Husbandmen and workmen cultivating land and having suffered a reduction, due to the war, of such external resources as wages.

" The borrowed money must serve an agricultural purpose, that is to say the purchase of live stock, small agricultural requisites, seeds, manures, etc.

" Loans are made by the medium of the local savings and credit fund or, failing it, through a committee of three or four persons duly approved by the central fund.

" On 31 December 1915 about forty of these loan committees were active.

" Funds and committees become liable for $\frac{1}{20}$ per cent. of all losses eventually suffered by the central fund from the loans they make. "

The new service of credit, thus organized, met at once with great favour which is proof of the extent to which it supplied a real need.

At the end of the year the number of these small war loans had reached 2,561 and their total value was 1,262,045 francs. The greatest number were granted in the province of Brabant where 926,020 francs were advanced to small cultivators who had suffered particularly.

The various insurance and mutual aid organizations continued to do business represented by a very respectable figure. Fire and life insurance and insurance against hail and mortality among live stock perceptibly increased the number of their policies, the amount of the premiums they received and the capital they insured.

DENMARK.

THE ACTIVITY OF THE ROYAL SOCIETY OF DANISH AGRICULTURE IN 1915-1916.

SOURCE :

AARSBERETNING OM DET KONGELIGE DANSKE LANDHUSHOLDNINGSSÆLSKABS VIRKSOMHED IN 1915-1916 (*Annual Report of the Work of the Royal Society of Danish Agriculture in 1915-1916*). Copenhagen, 1916.

The Royal Society of Danish Agriculture is a private society but is recognized and subsidized by the State. It was founded in 1759 and it aims at the progress of agriculture and related industries (Article 1 of the by-laws, approved in 1872). It is one of the most powerful agricultural societies in Europe. It has about 750 members and its budget of receipts and expenditure covers about 150,000 crowns (1). Its own property amounted on 31 March 1915 to about 300,000 crowns and it also administers a property formed of legacies and other donations to the society which at the same date surpassed 400,000 crowns. By means of its resources and of ordinary and extraordinary State subsidies this society extends its activity over the most varied agricultural spheres.

A list of the departments it has instituted which were at work in 1915-1916 comprises, among others: the committee for the inspection of wheat and foodstuffs in the port of Copenhagen; the committee for superintending the schools of agriculture founded by the society; the commission for the distribution of medals and prizes in money to agriculturists and agricultural labourers who have distinguished themselves during the year; the commission for scientific book-keeping by agriculturists; the committee for the diffusion of agricultural literature; the committee for economic journeys having an agricultural aim; the committee for goat-breeding; the commission for the scientific improvement of the soil.

The society further nominates members of various State commissions concerned with agriculture; and "Tidskrift for Landøkonomi", the important review of agricultural economy, is among its publications.

In 1915-1916 it proposed in particular to direct its activity towards the dissemination of scientific and technical publications on agricultural subjects; the encouragement of research in agricultural chemistry; the application of scientific principles to the breeding and feeding of domestic animals and the production of milk; the construction and use of agricultural machines; the development of agricultural industries; the subsidizing of

(1) 1 crown of gold = about 1 s. 1 $\frac{1}{4}$ d. at par.

agricultural exhibitions ; the improvement of the conditions enjoyed by agricultural labourers ; and the institution of bursaries for agricultural education abroad, and of journeys for agricultural education at home and abroad.

The importance to Danish agriculture of the society's work appears however in particular in the reports of the various committees and institutions it has founded. It will be well briefly to notice the chief among them, thus gaining an exact idea of the conditions of Danish agriculture.

A first report is concerned with the breeding of domestic animals and the diffusion of pedigree-books. These begin now to be kept, in the case of cattle, not only by large producers but also by small farmers. The task of the delegates of the society is to visit the breeders, to see that they possess registers and to inspect these, making sure that all births are registered and that the animals are entered accurately, and to establish registers for those who have none.

In the case of pigs the society has continued the experiments undertaken in its three experimental stations as to the products obtained from animals of various races. The results of the experiments are communicated immediately to the owners of the animals under observation. An immense amount of material, very important to this flourishing Danish industry, is thus accumulated at the stations.

In the case of poultry, in which Denmark has a growing interest in view of the high prices obtained for eggs and birds, the chief problems are those of feeding, artificial hatching, the cleansing of poultry-houses and the prevention of diseases.

In order that scientific principles may be applied to all of these the society's representative spent seventy-eight days in 1915 in travelling in different parts of the country, and he gave fifty-six lectures, inspected poultry-yards, planned modern poultry-yards, opened exhibitions, and responded to constant requests for advice. Many free courses were held in various districts and were well attended. An effort was made to popularize the principle that the exterior beauty of the birds should be less regarded than their yield and the purity of their race. It is remarked that electric machines for artificial hatching, the success of which seems to have been proved, are increasingly used, and that artificial eggs are used for such hatching. The society's delegates constantly exhort breeders to keep pedigree-books and regular accounts.

As regards goat-breeding the commission specially devoted to this industry was founded in 1912 and has constituted new breeding societies of which there are now thirty-four in the country. These local institutions, which the society subsidizes, hold meetings, reported in the local newspapers, for the discussion of problems connected with the industry. The commission recognizes the importance of pure-bred bucks and has interested large breeders in placing a certain number of them at the disposal of small farmers, thus obtaining noteworthy results. The commission has further made, on the most strictly scientific principles, a research into the milk provided by

forty goats of three or four different races, thus determining the content of fatty substances in relation to race and to feeding.

One of the commission's principal tasks is to give breeders scientific ideas as to the management of their animals, especially by means of newspaper articles and lectures. With this object the society has published a pamphlet entitled "Goat-breeding and Goat-keeping". It has also successfully encouraged a larger opening of zootechnical exhibitions to goats, and has formed offices for the sale and purchase of the animals which bring buyers and sellers together. The usefulness of the work of these offices has been recognized, and the number of sales and purchases effected by their means increases annually. The society now intends to institute prizes for good goat-stables, the importance of which is not yet fully understood by all the farmers.

* * *

The Society of Danish Agriculture also exercises a useful activity in the matter of milk production. It here directs its attention especially to the matter of technical education for which it receives a subsidy from the State. This amounted in 1915-1916 to 25,000 crowns, which sum was divided among 116 persons desirous of learning the methods of this industry or improving their knowledge thereof by means of bursaries allowing them to study in selected dairies inspected by the society, or to make short educational tours. The society thus limits its action to the choice of model dairies, in connection with which the bursaries are instituted; to the reception of applications from candidates and the examination of the latter, in order to discover whether they have the necessary aptitudes; to the distribution of subsidies; and to the superintendence of the progress made by bursars.

However the society has also undertaken the publication of a technical periodical, "Danske Mejerier", which has attained to a large circulation. Further on 28 January 1916 a meeting was held on the society's premises, which was attended by representatives of the society, the federation of co-operative dairies, the association of milk producers and the laboratory for testing milk. A proposal for the grant of an adequate State subsidy has been approved by the Ministry of Agriculture and is now before Parliament.

The committee instituted by the society for the improvement of land by drainage and irrigation should also be noticed. It has a technico-economic and a juridico-economic section. The latter brought forward in 1915 three proposals for the modification of the law as to public waters, and these have been approved by the society, and transmitted to the competent ministry in order that proposals relative to them may be made in the Chamber.

A form of the society's activity in the interests of agriculture is its management on behalf of the State of a service of consultation. It nominates the official of this service, whom the State must approve, and contributes to its costs. An office of consultation has been founded in the current year

for agricultural machines and implements. The usefulness of the function of the official responsible for this department appears in the fact that after several months it was necessary to place a sum of 3,500 crowns at his disposal, in order that he might pay for the services of various technical assistants, one person being no longer sufficient to meet all the demands. The rules which regulate his action prescribe that he shall keep himself *au courant* as to all progress made in the matter of agricultural machines and implements, and acquaint the public therewith in the fittest manner, experimenting therefore on the most suitable properties. He must also respond to all requests for explanations as to the matters within his competence. Every year he must send the society a report on his activity. Normally the State has no direct relations with the official responsible for consultations although he is a State functionary, but deals with him only through the medium of the society which superintends and pays him. An office of consultation has also been created in Russia. The official stationed there has those duties in relation to agriculture which fall in Italy to the commercial delegates abroad.

This new office was created in 1914. It has aimed at encouraging the exchange of agricultural products and the means of agricultural production between Russia and Denmark, and making public in the two countries the general and special economic conditions of their agriculture, at submitting proposals tending to encourage such exchange to the ministry, at answering the relevant enquiries of public bodies and of individuals in the two States, and at counteracting in the Russian press all information which might be detrimental to Danish agriculture and its products. In 1915 the delegate undertook a long journey through all Russia in order to study the conditions most favourable to the sale of grain, which Denmark produces largely, and thus to supersede in this market Germany, hitherto almost a monopolist in respect of this article of merchandise.

A long account is published in the society's annual report of this journey which had good results. The delegate succeeded in establishing commercial relations between Danish producers and Russian consumers and in concluding numerous sales of seeds of vegetables, flowering plants and trees, of animals for reproduction and of agricultural machines. For purposes of propaganda the society has published two pamphlets on experience in cultivating plants in Denmark and on several noteworthy forms of Danish agriculture. The official responsible for the service of consultation translated these into Russian and circulated them largely. As well as a series of articles in Russian agricultural periodicals, which make Danish agriculture known, he has published others in Danish periodicals, and he has personally undertaken a large propaganda for the dissemination of knowledge of the conditions of Russian agriculture. Thanks to all these efforts, and in spite of obstacles raised by the war, many Danish producers have been able to find a footing in Russia and establish with this country sure relations which will soon yield excellent results.

* * *

The society's activity in the matter of agricultural education is very interesting. Places for study are of three kinds: they are on large farms, on small farms and on farms specially devoted to stock breeding.

The education on the first of these lasts three years, each year spent on a different farm in order that the student may have a large and varied experience. His instruction is essentially practical, but the society also encourages theoretical knowledge, sending to each student a certain number of scientific manuals which remain his property after he has finally and successfully passed his examinations. In order to obtain a place a student must be seventeen years old and must already have followed a two years' elementary course in agriculture. The students receive from 150 to 250 crowns a year; they are lodged and kept and are regarded as in the employment of the owner of the farm. They must enter the work they execute in a diary and cannot otherwise obtain a final certificate. In 1915 fifty-eight of these places were assigned and sixteen certificates of completed studies were awarded.

Places for study on small farms are granted for two years. In addition to board and lodging the students receive from the owner 175 crowns in the first and 200 crowns in the second year.

Bursaries for stock-keeping always last for three years which are spent on two different farms. The owner boards and lodges the students, and pays them 175 crowns in the first, 200 crowns in the second and 250 crowns in the third year. They must do all the work they are ordered to do, learning especially to milk, to understand forage, to clean and care for animals, to kill pigs and to perform kindred tasks.

* * *

A very important share of the society's activity is devoted to scientific publications and methods of propaganda.

In 1915 it published: the periodical "*Tidsskrift für Landekonomie*" (*Review of Agricultural Economy*); 2,400 copies of its annual report; 1600 copies of the "*Landekonomisk Aarburg 1916*" (*Agricultural Yearbook 1916*) and various less important matter.

In order to circulate this literature of agriculture the publications were sent to 960 circulating libraries, many popular schools, the best elementary schoolmasters, and all the *Soldaterhjem* (Soldiers' Homes) depending on the Ministry of War. Moreover six lectures on various agricultural subjects were held in January, February and March.

The society has distributed a certain number of silver cups to agriculturists who have particularly distinguished themselves by transforming, by indefatigable labour almost unaided by financial resources, uncultivated land into small properties having a high yield; and has also given twenty medals to peasants and labourers, both men and women, who have shown particular skill in certain branches of the agricultural industry or who have

served their masters long and faithfully. Other prizes and medals, arising out of legacies to the society by various benefactors for determined objects, have also been awarded, and two competitions, to which prizes attach, for publications on seed-drying and horse-breeding, have been opened.

The society has a special fund of about 25,000 crowns intended for grants to poor students who have to pass examinations in agriculture at the Higher School of Agriculture and the Veterinary School. Monthly grants of no more than 20 crowns are made for the maximum period of a year. Six students received in 1915-1916 such grants amounting altogether to about 900 crowns.

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* *

Mention should finally be made of four meetings, held on the initiative of the Society of Agriculture, by its representatives and those of three other large agricultural associations in the kingdom, namely the Association of Mutual Agricultural Societies, the Federation of Co-operative Societies, and the Peasants' Association (*Husmand*). At the first meetings no more was done than amply to discuss and to vote on an order of the day addressed to the Minister of the Interior. This expressed a wish that agriculture should be more largely represented in the commissions responsible for fixing the prices of foodstuffs. At the other meetings various other subjects were discussed, such as the employment of agricultural machines, the protection of agricultural interests abroad, the formation of an agricultural office of accounts. All the meetings were well attended and their results have been very important to agriculture. Summary accounts of their discussions have been published in different agricultural reviews.

GREAT BRITAIN AND IRELAND.

THE AGRICULTURAL ORGANIZATION SOCIETY IN ENGLAND AND WALES.

SOURCE:

THE REPORT OF THE AGRICULTURAL ORGANIZATION SOCIETY FOR THE YEAR ENDED MARCH 31st, 1916. London, The Stepney Press, 1916.

§ I. INTRODUCTION.

The Agricultural Organization Society was founded in 1901 for the purpose of advancing co-operation among English and Welsh farmers. Its work is of a twofold character:

1) It is a propagandist body — as such it seeks to spread the co-operative principle and helps in the formation of new societies.

2) It is an organizing body and as such advises and helps the societies already formed.

The co-operative societies with which it concerns itself may have one or more of the following objects:

1) They may *buy* for their members manures, seeds, feeding stuffs, implements and other articles, securing their purity and obtaining wholesale terms from the manufacturers, importers or wholesale merchants.

2) They may help to *market produce*:

a) by organizing the milk supply on a co-operative basis, thus eliminating the middlemen's profits which lower the price to the producer and raise it to the consumer;

b) by establishing co-operative butter and cheese factories in suitable districts;

c) by establishing co-operative depots for the collection of eggs;

d) by grading and packing fruit in order to place it on the market in a fresh and attractive condition;

e) by organizing the proper classing and packing of wool, thus securing a better price in the market for sheep breeders;

f) by organizing co-operative markets and by breaking down the rings formed against the producer;

g) by organizing the consignment of goods in bulk and arranging terms with railway companies and carriers, thus reducing the costs of transport.

3) They may hire or buy *pedigree stallions, bulls or boars*, for the use of their members at reasonable fees.

4) They may arrange for all kinds of *agricultural insurance*.

5) They may acquire land and let it to their members in *small holdings and allotments*.

6) They may establish *agricultural credit societies*.

Co-operative societies having these objects become affiliated to the Agricultural Organization Society on applying for membership and on paying a small subscription. They continue to be entirely self-supporting and self-governed but affiliation brings them many benefits. It enables them to receive copies of model rules at their time of formation, to be advised in matters of policy, to be helped with their book-keeping, and to be assisted in their negotiations with government departments, railway companies and others. The affiliated societies may avail themselves without payment of the services of the experts on the staff of the Agricultural Organization Society, whose special knowledge covers such subjects as dairy farming, eggs and poultry, wool, small holdings and allotments, accounts and the rules of co-operative societies. Finally all of them profit by the fact that the parent society co-ordinates them.

The parent society itself does no trade and makes no profit. For many years it was supported entirely by voluntary contributions, but it now also receives grants from the Development Fund in aid of its work for the general development of agricultural co-operation, and from the Board of Agriculture and Fisheries in aid of its promotion of co-operation in connection with small holdings and allotments.

As regards its organization the society has offices in Westminster and employs a general secretary. Its affairs are managed by thirty-two governors who include three nominees of the Board of Agriculture; and two each of the County Councils' Association and the Co-operative Union. Seventeen further governors are elected by the affiliated societies and of this number one fourth retire each year in alphabetical rotation. The society divides its local work among eight branches which cover all England and Wales, having their respective offices at York, Preston, Derby, Tonbridge, Salisbury, Plymouth, Bangor and Brecon.

§ 2. GENERAL REVIEW OF THE WORK IN 1915-1916.

The war has created opportunities for the Agricultural Organization Society: first because the need for national economy and the interruption of overseas trade have at last caused British agriculture to be recognized as a basic and essential industry; and secondly because the scarcity of labour, the difficulties of transport and the novel conditions of the market have brought the farmer face to face with problems which have shaken his conservatism and made him turn to co-operation as a possible solution. It was therefore possible to extend the society's enterprise in several directions in 1915-1916.

a) *New Branches.*

Two of its eight branches were formed between 1 April 1915 and 31 March 1916. They are the North Midlands Branch, which covers the

counties of Nottingham, Stafford, Leicester, Derby and Rutland and has its offices at Derby ; and the South Western Branch, for Devon and Cornwall, which has its offices at Plymouth.

b) New Societies.

In the same period forty new societies were affiliated to the Organization Society. They are distributed as follows according to their objects

Purchase of Agricultural Requirements	17
Dairy	3
Eggs and Poultry	10
Auctions etc.	2
Land Renting (Small holdings and allotments) .	5
Credit	1
Miscellaneous	2

40

The Board of Agriculture having drawn especial attention to the usefulness of forming Village Food Societies, to increase the growing of vegetables, encourage the cultivation of allotments and gardens, and bring any pieces of uncultivated land into cultivation, the society endeavoured with success to bring several of these into existence. In some instances the Womens' Institutes filled the part of Village Food Societies.

c) Women's Institutes.

The Agricultural Education Conference on Agricultural Education for Women reported in favour of the formation of Women's Institutes which should stimulate a desire for rural education ; and at the annual meeting of the Agricultural Organization Society in 1915-1916 a resolution was accordingly passed recommending that the society should undertake the work of such formation. The services were secured of the lady who is secretary to the National Council of Women's Institutes of Canada, a country in which these institutions play an important part, and up to 31 March 1916 fourteen of them had been founded in England and Wales. It is their object " to study home economics, to provide a centre for educational and social intercourse, to encourage home and local industries, to develop co-operative enterprises, and to stimulate interest in the agricultural industry ".

d) The Supply of Produce to the Army.

The system under which the military camps obtained their supplies of fruit and vegetables was often unsatisfactory, the different units competing with each other so that prices rose while quality frequently remained indifferent. In October 1915 the Agricultural Organization Society together with the Purchasing Officer of the 68th Division, stationed at Bedford, formulated a scheme for purchasing the Division's whole supply in bulk ; and this was approved by the General Officer Commanding and was

at once put in force. The society's expert in fruit and market garden produce was placed at the disposal of the military authorities, as adviser. The result was a rapid improvement in the quality of the supply, an economy to the military authorities, better prices for the producers who profited by the elimination of the middleman, and cheaper fruit and vegetables for the civilian population since general prices fell with army prices. The matter was brought to the attention of the War Office and the Army Council has in consequence approved the gradual extension of the scheme to other camps. A new committee, called the Army Canteen Committee, has been formed to take over the powers and duties in respect of canteens hitherto entrusted to the Board of Control of Regimental Institutes ; and also a Command Canteen Committee for each command. The Agricultural Organization Society is represented by its nominee on the Army Canteen Committee and on each of the Command Canteen Committees.

The necessary central purchasing body has been found in a new society affiliated to the Agricultural Organization Society, the Agricultural Produce Supplies, Limited. The Agricultural Organization Society's late expert in fruit and market-garden produce is its secretary and manager. It distributes no profits, but charges a commission to cover management expenses and returns any surplus funds to the War Office.

e) Relations with the County War Agricultural Committees and with other Bodies.

In November 1915 the Board of Agriculture notified the County War Agricultural Committees that the society had placed its services and those of its branches and organizers at their disposal ; and the society itself sent them a circular letter confirming this information and drawing their attention to certain branches of agricultural work to which co-operation was particularly applicable.

The subsequent action varied in different counties : in some direct representation on the war agricultural committees has been given to the farmers' co-operative societies ; in some the Womens' Institutes have been recognized as District War Agricultural Committees ; in Glamorganshire the farmers' co-operative societies have been appointed to act as the District War Agricultural Committees ; in Cornwall the county committee organized the supply of sulphate of ammonia through the Farmer's Central Trading Board which is affiliated to the Agricultural Organization Society.

The society has also worked in close touch with the Scottish and Irish Agricultural Organization Societies, the Housing Organization Society, the Fisheries Organization Society and the Co-operative Union, and with County Councils, Agricultural Colleges and many other public associations. Its relations with the Board of Agriculture and Fisheries have been both harmonious and important.

f) Publications.

The society's monthly journal, *Co-operation in Agriculture*, has been suspended in the interests of economy. By arrangement with the pro-

prietors of the *Smallholder* a column of that paper is however devoted every week to matter supplied by the society, and such columns are reproduced every month and sent to all who formerly received *Co-operation in Agriculture*. A proposal to issue a quarterly has been abandoned for the present; but the society has inaugurated a series of booklets, each of which will deal with an important aspect of agricultural co-operation, and which will be published at a price sufficient only to cover the cost of printing.

g) *Finance.*

The following is a summarized account of the society's expenses in 1914-15 and 1915-1916:

	1914-1915			1915-1916		
	£	S	D	£	S	D
Salaries.	6,098	9	10	6,420	14	9
Travelling and maintenance of governors and others.	2,022	1	3	2,839	18	1
Rent and other expenses connected with office.	1,100	2	10	1,147	10	2 ½
Printing, duplicating, literature.	725	8	2 ½	574	6	10 ½
Postage, telegrams, telephone.	265	16	2 ½	327	0	3
Audit fees of affiliated societies.	229	5	6	57	11	0
Egg or Poultry Demonstration Train.	—			337	8	10
Other expenses.	104	4	3	131	18	11
Total.	10,545	8	1	11,836	8	11

The society's income in the same two years was as follows:

	1914-1915			1915-1916		
	£	S	D	£	S	D
Subscriptions.	1,782	13		1,605	9	6
Donations.	56	18	6	—		
Contributions from affiliated societies.	262	16	3	382	9	3
Advertisements in Journal and Report.	126	11	0	52	5	4
Sale of Journal or other literature.	13	6	1	3	14	2
Bank interest.	13	10	7	—		
Total.	2,255	15	5	2,043	18	3

The excess of expenditure over income was therefore £ 8,289 12s 8d in 1914-1915 and £ 9,792 10s 8d in 1915-1916. These deficits were covered by government grants, as is seen in the published balance-sheets, here reproduced.

Debit	1914-1915	1915-1916	Credit	1914-1915	1915-1916
	£ S D	£ S D		£ S D	£ S D
Amount refunded to His Majesty's Treasury . .	394 8 5	1,710 7 4	Balance as per last Balance-Sheet	394 8 5	1,710 7 4
Excess of Expenditure over Income	8,289 12 8	9,792 10 8	Grants :		
Balance	1,710 7 4	183 9 4	Small Holdings Account .	2,000 0 0	1,988 0 0
			Development Fund . . .	8,000 0 0	7,988 0 0
	10,394 8 5	11,686 7 4		10,394 8 5	11,686 7 4

It is clear therefore that the Agricultural Organization Society is mainly supported by government subsidies.

§ 3. THE AFFILIATED SOCIETIES.

a) The Societies in General.

The affiliated societies experienced in 1915-1916 a very general increase both in their membership and in the amount of their business, and this in spite of the impediments to agriculture which are due to the war — the scarcity of labour, the difficulties of transport. The disturbance of the market has on the whole favoured the farmer ; he has had to pay more for certain of his requirements but the price of his produce has risen to a more than compensatory extent, and the creation of the army has provided a new and profitable demand for his supplies. The rise in prices has naturally increased the turnover of the societies, a fact which should be borne in mind in drawing conclusions from their balance-sheets.

The total membership of the 550 affiliated societies in the year under review was 55,831 and their total turnover was £ 3,428,960. Of this sum more than two thirds, namely £ 2,450,397, belonged to the societies for the purchase of agricultural requirements, most of whom sell farm produce as a secondary business. These societies numbered 213 and their combined membership was 26,241. The following table shows the comparative importance of the different groups of societies :

Class of Society	No. of Societies	No. of Members	Turnover
			£
Purchase of Agricultural Requirements . .	213	26,241	2,450,397
Dairy	38	4,086	722,620
Egg and Poultry	29	2,996	87,954
Auction and Produce	27	2,029	140,363
Small Holdings and Allotments	177	15,975	12,434
Miscellaneous	18	3,563	15,192
Credit	48	941	—
	550	55,831	3,428,960

The following are the ten counties in which the co-operative societies had a turnover running into six figures :

County	No. of Societies	No. of Members	Turnover
			£
Suffolk	5	2,241	450,962
Yorkshire	44	2,985	373,618
Hampshire	31	4,741	246,161
Carmarthen	10	3,650	245,030
Lancashire	11	1,467	232,552
Cheshire	10	2,385	231,892
Wiltshire	27	2,221	192,412
Gloucestershire	10	1,309	158,865
Essex	9	503	158,117
London	13	3,704	129,388

The importance of co-operation in each of these counties except Gloucestershire is explained by the existence in it of one very strong society. In 1915-1916 a co-operative society for the purchase of agricultural implements in each of the first six of them, and a co-operative dairy society in Wiltshire, in Essex and in London, had itself a turnover running into six figures. In Gloucestershire several societies of secondary importance were responsible for the large turnover.

In the report of the parent society the affiliated societies are criticized for their frequent lack of sufficient working capital. "Hardly any

society has as much as it could usefully employ and in many progress is retarded because the management is hampered by want of money... The real necessity for it has not hitherto been fully realized. It is in truth extraordinary on what small capital some societies have built up large turn-overs.... The system of working through central and branch depots is gaining more and more favour in the case both of trading and of produce societies. For this and other reasons more capital is desirable". As a supplement to the issue of loans many societies find it convenient to invite loans from members, repayable at a certain notice and carrying regular interest.

The societies do not aim at making large profits in order to pay dividends to their members, but generally prefer to return the benefits which accrue from co-operative purchase immediately, in the form of lower prices, merely retaining a sufficient margin to secure against loss. However an increasing number of societies find themselves in a position at each year's end to grant members, as a bonus, a small sum in the pound on the goods sold. The system tends to increase both membership and the amount of business done.

By a clause in the Finance Act (No. 2) 1915 excess profits are computed in the case of co-operative societies not on the basis of the total profit of a society but on that of the individual profit accruing to each member. This provision is most important, for the increased profits made by many societies since the war are entirely due to an increased membership.

b) Small Holdings and Allotment Societies.

As regards societies of this type progress is shown in the number that were formed during the year, but the total acreage they held and the number of their tenants diminished. The reduction in acreage is probably due to the expiry of leases and to the increased demand for small allotments, to be made into gardens by town workers. A considerable number of new societies were formed for the purpose of acquiring land for such garden allotments, and most of these were registered in the latter part of the year and had not yet acquired land when the report was made.

The following comparative data should not therefore be taken as indicating any real retrogression. The figures for 1914, which are taken from the Board of Trade Labour Gazette are incomplete, since they concern only 147 societies whereas 172 were registered in that year by the Agricultural Organization Society.

	1914	1915-16
Number of Societies.	147	177
» » Members	16,205	15,975
» » Tenants	12,234	10,498
Acreage held.	15,432	14,646

c) Agricultural Credit Societies.

The forty-eight co-operative credit societies lent during the year the total sum of £1,087. This is a very limited success and one which has little relation to the demand for credit: many farmers, small holders and others are seriously hampered because they cannot obtain temporary loans on easy terms. The Agricultural Organization Society decided in 1915-1916 on an investigation into the causes of the slow progress of agricultural credit societies.

d) The Agricultural and General Co-operative Insurance Society.

This is the single insurance society affiliated to the Agricultural Organization Society. The year 1915 showed an increase of 25 per cent. in its premium income and the gross sums insured against fire amounted to over £4,000,000. A 5 per cent. dividend was declared on shares and a bonus of 5 per cent. on life premiums. The net claims on account of fires were considerably higher than the average of recent years, so, although the society had worked at a profit, no bonus was declared to the holders of fire policies in accordance with the practice which has been such an interesting feature in the society's work since its formation. In consequence too of the unsettled state of the investment market, the investment reserve fund was increased, and the balance remaining was carried forward.

e) The Farmers' Central Trading Board.

This board is a central wholesale establishment for all kinds of agricultural requirements and it receives applications for membership from societies affiliated to the Agricultural Organization Society. In 1915 it absorbed the Agricultural Co-operative Federation and its headquarters were then transferred to London.

It quickly became apparent that since many districts obtain their agricultural supplies from other ports than London some local organization would be useful. North-Western, North-Eastern and Welsh Sections of the board therefore came into being.

The increase of sales in 1915 was satisfactory and they promised to be yet more considerable in the following year.

§ 4. A DIRECTION OF FUTURE EFFORT.

The Agricultural Organization Society is especially desirous of promoting in England and Wales continuous crops and the co-operative ownership of farm implements. To this end Mr. T. Wibberley, who had had much experience of such work in Ireland, was sent on a lecture tour through the English and Welsh counties in the winter of 1915-1916. We quote from his report:

“Undoubtedly in comparison with other English industries agriculture is in many places very backward, but the recognition of this fact by

those engaged in agriculture is the first essential step towards progress. As to the progress made and likely to be made, it was with pleasurable surprise that I found a number of farmers at practically every place I visited who, from the somewhat meagre writings which so far I have been able to put before the public on the subject, have during the past few years been growing continuous crops, on what they call a small scale and what we in Ireland would call a very large scale. From the information so obtained it is very evident that the system with adaptations is just as suitable for English as for Irish conditions — in Wales and the south western districts of England even more suitable.

“ Again as regards the co-operative purchase and use of implements, the recent introduction of motor and motor implements into agricultural work has opened up a vast field for development in this direction on the part of the bigger farmers. On the other hand the spread of the Small Holdings Act calls for — even demands for the success of the Act — a far more extended use of modern machinery, which in the case of the smallholder must be purchased and used conjointly... Already several both large and small implement societies have been formed or are in the process of formation. There are difficulties in the way, the chief one being the extreme difficulty which some societies are meeting in the procuring of machinery — a difficulty which I have tried several times to focus attention upon, and one which it is to be hoped will shortly receive the serious attention of the authorities concerned ”.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

GERMANY.

SOME FACTS AS TO THE CO-OPERATIVE MOVEMENT IN GERMANY. — *Jahrbuch des allgemeinen Verbandes der auf Selbsthilfe beruhenden deutschen Erwerbs- und Wirtschaftsgenossenschaften e. v. für 1914. XVIII Jahrgang, Berlin, 1915.*

On 1 January 1915 there were 117 central and 36,032 ordinary co-operative societies. More than half of these — 55.4 per cent. — were in Prussia. The number of central co-operative societies had not changed since 1 January 1914, but that of the others had increased by 1,006. All or almost all this increase dated however from the months before the war. The increase between 1 January and 1 August 1914 was one of 941 which is to say that between 1 August 1914 and 1 January 1915 it was only of 65. It should be noted that between 1 January and 1 August 1915 it was of 122.

As compared with preceding years 1914 showed lessened progress, the increase having been 1369 in 1913, 1676 in 1912, and 1426 in 1911. The increase of 1006 in 1914 was not equally distributed among the various kinds of co-operative societies. It included 400 credit societies, 168 trade societies, 199 societies for the purchase of primary materials, 116 breeding societies, 69 house-letting societies, 52 rural producers' societies, and no important number of any society of another kind.

The total number of 36,032 co-operative societies was distributed as follows :

1. Credit societies	19,700
2. Societies for the purchase of the primary materials of industry.	846
3. Rural societies for the purchase of primary materials	3,167
4. Merchants' societies for the purchase of merchandise	306
5. Consumers' societies	2,418
6. Societies for the purchase of agricultural machines	22
7. Labour societies	2,368
8. Producers' societies	4,555
9. Breeding societies	396
10. Societies for letting dwellings.	1,538
11. Various societies.	716
Total	<u>36,032</u>

As regards form of liability the societies were distributed as follows:

- | | | | | |
|--|--------|----|------|-----------|
| 1. Unlimited liability societies . . . | 21,849 | or | 60.6 | per cent. |
| 2. Societies to which new payments | | | | |
| were unlimited | 168 | " | 0.4 | " " |
| 3. Limited liability societies - . . . | 14,015 | " | 39 | " " |

The unlimited liability societies were diminishing while the percentage of societies having limited liability was increasing. In 1905, 68.8 per cent. of the societies had unlimited and only 30.6 limited liability. Unlimited liability prevailed in 1915 among the credit societies, 87 per cent. of which had this form, and among the rural producers' societies of which 65 per cent. had it. Limited liability predominated on the other hand among all the others, especially among the trade societies, the merchants' societies and the producers' societies.

ITALY.

1. A MEETING OF THE REPRESENTATIVES OF THE CATHOLIC ECONOMIC ORGANIZATIONS OF THE SOUTHERN PROVINCES. — *Azione Sociale*, organ of the *Unione Economico-sociale fra i cattolici italiani*, No. 17, Faenza, 15-31 December 1916.

Under the auspices of the Economico-Social Union of Catholic Italians and on the initiative of *Federazione Bancaria Italiana* (1) in agreement with the *Federazione Italiana delle Casse Rurali Cattoliche*, a meeting of representatives of the Catholic economic institutions of Southern Italy was recently held at Rome. Its object was to find practical means of intensifying Catholic economic activity in the south. The organization and the present condition of the Catholic banks and the rural funds and agricultural union of the provinces of the district were examined, and discussions were held as to the methods best adapted to promote their development and co-ordination. As regarded, in particular, the banks, this meeting decided to entrust to the *Federazione Bancaria Italiana* the task of: a) promoting and bringing to a conclusion action for the formation of provincial or local institutions of credit in the most important centres; b) facilitating the transformation of existing banks from co-operative limited liability

(1) This federation of Italian Catholic banks was formed at Milan "in order to afford reciprocal protection, vigilance, co-ordination and assistance to each bank in its autonomous exercise of economic activity". The bank discharges the following functions by the means of a federal committee: a) it visits federated banks and causes their inspection at least once a year; b) it acts as an intermediary relating them mutually in order to ensure that the activity of each harmonizes with the collective interest; c) it endeavours to make them take opportune measures for the avoidance and defeat of the moral and financial difficulties which they may encounter; d) it assists and represents the federated banks where their general interests are concerned.

societies to simple limited liability societies, facilitating the desired increase of their capital; c) helping these banks to perfect and complete the branches of their activity, actively relating the interests of the various Catholic institutions, etc.

As regards rural funds we should state, as does the report, that in these provinces "there are numerous Catholic rural funds but all of them do not fulfil the objects for which they were founded". In order to intensify the movement it was therefore judged necessary to reinforce, co-ordinate and improve it. For the execution of this work of organization the *Federazione delle Casse Rurali Cattoliche* of Bologna had long delegated the *Credito Centrale* of Latium which, in view of the fact that it is an institution federating the Catholic economic institutions of the Roman and adjacent provinces, was particularly fitted for the task. The meeting noticed the action taken by the *Credito Centrale* of Latium, which promoted the formation of provincial federations of the rural funds of Reggio in Calabria, Salerno and Benevento, and, with a view to collaboration entered into relation with those of Cosenza and Amatrice; and which caused various reunions to be held in other provinces. The meeting therefore confirmed the mandate of the *Credito Centrale*. It then decided: a) to work for the constitution of legally founded federating centres in regions where none exist, preferably in provincial capitals, and where this is impossible to make the strongest and best administered rural fund in a given zone its federating centre; b) to cause all federations to correspond with the *Credito Centrale* of Latium which will act as their intermediary in their relations with the *Federazione italiana delle casse rurali* and afford them particular assistance in technical, legal and fiscal matters, facilitating all their financial business; c) to cause all Catholic rural funds, in order that they may completely discharge their social and economic function, not only to afford cheap credit but also to facilitate active habits of thrift among the agricultural classes. Such action will place at their disposal a sufficient amount of deposits and thus allow them to be maintained and to discharge their functions by means of local resources. If their resources prove insufficient the local federations will undertake to supplement them, taking all desirable precautions.

There was question at the meeting of the organization of agricultural unions (Catholic societies for the purchase of article useful to agriculture). In the south there are very few of them (at Benevento, Campobasso, Sulmona, etc.) although they could very usefully assist the development of local agriculture. The meeting recognized their importance and deliberated concerning them, and then decided: a) to work for the constitution in legal form of agricultural unions, either provincial or regional, which would operate in centres where their influence is least strong and bring into being efficient societies for the protection of the moral and economic interests of agriculturists; b) to take action causing these agricultural unions not to confine themselves to the collective purchase of merchandise and manures necessary to agriculture, but to undertake also the export of products of the soil, entering therefore with this object into relations with the Catholic agricultural unions of North Italy. For the execution

of this work the action of the national federation of agricultural unions, which has yet to be founded, will be necessary. It will undertake the formation at Rome of a special office for the needed work of propaganda.

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2. THE FEDERATIONS OF THE CATHOLIC RURAL FUNDS OF THE PROVINCES OF BOLOGNA, REGGIO D'EMILIA, FORLÌ, AND SALERNO IN 1915-1916. — *Cooperazione Popolare*, nos 22-24. Parma, 31 decembre 1916.

We borrow from *Cooperazione Popolare*, the organ of the Catholic rural funds, the following data as to the position and activity of some provincial federations of rural funds in 1915-1916. The *Federazione delle Casse Rurali e Popolari* of the province of Bologna is one of the most important Catholic federations of rural funds. A year ago it grouped 86 funds, 77 of them rural and 9 of them popular, which comprised altogether 7,541 members. It now groups 88 funds, 78 of them rural and 10 of them popular, which have 7,617 members. We here resume the general position of the federated funds on 31 October 1914, 31 October 1915 and 31 October 1916:

On 31 October	1914	1915	1916
Federated funds	83	86	88
Number of members inscribed.	7,385	7,541	7,617
Loans to members	1,870,065.74	1,810,060.95	1,581,904.68
Securities	573,565.73	708,682.33	1,067,237.34
Deposits on current credit account	863,138.91	982,745.64	1,903,131.77
Assets in coin, merchandise and miscellaneous assets	198,864.90	221,646.68	336,088.39
Total	3,505,635.28	3,723,135.60	4,888,362.18
Liabilities in interest and costs for 10 months	106,660.98	110,691.64	130,208.02
Total	3,612,296.26	2,833,827.24	5,018,570.20
<i>Liabilities.</i>			
Trust deposits	3,276,908.17	3,455,818.73	4,649,820.76
Current debit accounts	60,122.85	57,667.31	17,376.33
Interest not due and various liabilities	24,810.77	42,771.98	40,645.05
Total	3,361,841.79	3,556,258.02	4,707,842.14
Society's capital	125,528.37	147,315.14	167,788.97
Total	3,487,370.16	3,703,573.16	4,875,631.11
Assets in interest and profits for 10 months	124,926.10	130,254.08	142,939.09
Total	3,612,296.26	3,833,827.24	5,018,570.20

This table shows above all a constant increase of deposits which is proof of the confidence felt in these institutions. Thus on 31 October 1914 deposits amounted only to some 3,277,000 liras, on 31 October 1915 to 3,456,000 liras, and on 31 October 1916 to 4,650,000 liras; that is they increased by nearly 180,000 liras between 1914 and 1915, and by 1,200,000 liras or an average of 100,000 liras a month between 1915 and 1916.

It should be remembered that this increase in deposits and the accompanying reduction in loans are partly due to an abandonment, on account of the war, of much agricultural and even of commercial and industrial enterprise. We may therefore expect that at the end of the war, when life returns to its normal course, deposits will diminish and applications for loans, which have become insignificant, will increase. Loans decreased from about 1,870,000 liras on 31 October 1914 to 1,810,000 liras on 31 October 1915 and 1,582,000 liras on 31 October 1916. Thus the diminution was one of nearly 60,000 liras between 1914 and 1915 and of 228,000 liras between 1915 and 1916.

If this increase in deposits be added to the reduction of loans a total sum of about 1,700,000 liras is obtained. If secondary items in the account be left out this sum comes to be one of more than a million liras which went to swell that comprised under the heading "deposits on credit current accounts in credit institutions", while nearly half a million liras was entered under the heading "securities".

As in preceding years the federation did not neglect to give assistance in technique, book-keeping and legal matters to the federated societies.

The *Federazione delle Casse Rurali* of Reggio d'Emilia groups twenty-three rural funds. We take the following data from their balance-sheets for 31 December 1915.

Capital and reserve	92,774.40	liras
Trust deposits	2,183,476.25	"
Bills held	1,279,414.11	"

In general the position of the rural funds in the province is good.

The *Federazione delle Casse Rurali* of the province of Forlì groups, according to the report presented by the presidents to the federal meeting on 8 June 1916, societies which are in an entirely satisfactory economic and financial position, in spite of the crisis due to the abnormal state of affairs.

They were able in the year in question to afford the same credit to their members as in 1915, but by a wise provision they gradually reduced their paper and then formed a reserve in the form of a credit current account at the *Banca del Credito Romagnolo* from which they receive a preferential rate. The diminution in their investments is due rather to the diminished demands of their members than to the imposition of restrictions.

The recently formed funds are those which have most increased the sum of their deposits. The others faced an alternative of increase or diminution, but increases prevailed at the end of the year, showing that

the war had notably reacted on those institutions which still enjoy popular confidence.

The punctuality of members in repaying the amounts they borrowed has been entirely praiseworthy. Loans numbered 3,025 on 31 December 1914 and had risen to 3,114 at the end of 1915. Deposits on 31 December 1915 amounted to 854,800.49 liras as against 807,901.27 liras on 31 December 1914: that is they increased by 46,899.22 liras. This increase shows that even the poorest classes, from whom the deposits emanated, were well-to-do, a fact confirmed by the diminution in loans which allowed the funds to augment their reserves in specie. The amount of the bills held was lowered from 840,450.35 liras in December 1914 to 720,809.17 liras at the end of December 1915.

The *Federation of Salerno* was founded in April 1916. It immediately undertook the formation of new funds in the vast region of Salerno and Lucania. The rural funds of Siano, Vietri-sul-Mare, Bracigliano, Castel San Giorgio, Torello, Pastena and Fosaro were thus constituted, and others are in course of formation at Eboli, Lanzara, Cioriani, Fisciano, S. Cipriano Picentino and Agliara.

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5. THE INSPECTING AND BOOK-KEEPING OFFICES FOR CO-OPERATIVE SOCIETIES. — *Istituto di credito per le cooperative*. Branch at Reggio d'Emilia. Extract from the report on the balance-sheet for 1916.

The *Istituto di credito per le cooperative* of Milan founded long since and most opportunely offices for the inspection and book-keeping of co-operative societies. The reason for their existence is explained as follows in the report on the budget for 1916 of the Reggio d'Emilia branch. "The needs of co-operation become larger and more and more complex and the desire of the *Istituto di Credito* for a regulation of credit grows proportionately. Hence the necessity that there should always be at hand the material for learning the conditions of the enterprises as regards their economy and their capital in real estate. This gives a motive to all the co-operative societies to prove the value of their organizations, for it is from all of them together that operations of credit in general and of fiduciary credit in particular can derive their indispensable effective guarantees". The report cited shows the activity of these societies. In 1916 they kept the books of 54 co-operative societies and drew up their balance sheets: the office of Reggio did this for 31, that of Guastalla for 23.

The inspecting office undertook notable work. It revised 164 balance-sheets, belonging, respectively, to 67 consumers' and 97 labourers' co-operative societies; and it gave 195 consultations.

The results obtained by revising the balance-sheets were the bases for the compilation of statistics of 1914, and the like are now being compiled for 1915. If the data collected be resumed the progress of co-opera-

tion in the region of Reggio in 1914 will be seen to present the following facts:

Co-operative societies adhering to the Office of Inspection number 156 of which 74 are consumer's societies, 69 labour societies and 13 agricultural societies. The total number of members is 20,580, distributed as follows: 9,204 in co-operative consumers' societies; 8,876 in co-operative labourers' societies and 2,500 in co-operative agricultural societies.

The subscribed capital amounts to 1,755,907 liras and reserves to 738,876 liras.

The following figures represent the turnover: sales, 4,198,961 liras; work 5,845,648 liras.

The total amount of operations of credit effected by this institution of credit is as follows:

From 1 July 1911 to 31 December 1912	
(18 months)	6,226,784.57 liras
In 1913	4,856,936.29 »
» 1914.	5,317,068.22 »
» 1915.	6,134,063.15 »
» 1916.	6,882,608.30 »
Total . . .	29,417,460.53 »

These data are proof of the importance of the work accomplished and also of the useful service rendered by this institution to co-operation.

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4. LA FEDERAZIONE APISTICA ITALIANA. — *L'Agricoltura italiana*, organ of the federation, Nos. 1 and 2, Ancona, January and February, 1917.

This Italian Apiarist Federation, which has its headquarters at Ancona, is a limited liability co-operative society, having an unlimited capital and aiming at the production and sale of honey and wax (1). It was founded in 1904 on a modest scale but has developed constantly, as is shown by the following table.

(1) The *Federazione apistica subalpina* is in course of construction at Turin in the form of a limited liability co-operative society aiming at a) the progress and popularization of rational apiculture; b) the improvement of members' apiculture; c) the collective purchase and use of everything necessary to the rational practice of this industry; d) the marketing of products. See in this connection *Apicoltore moderno*, Nos. 3 and 4, Turin, March and April 1917.

Development of the Federation from 1904 to 1916.

Year	Society's capital	Number of members	Turnover	Exporta- tion	Total sales	Price by quintal, including packing
	Liras		Liras	Quintals	Quintals	Liras
1904	1,314	72	2,087	—	—	—
1905	9,236	456	419,226	175	757	76
1906	10,342	534	1,392,060	385	1,606	68
1907	11,246	600	1,640,864	625	1,453	77
1908	22,798	607	1,995,906	605	2,032	76
1909	31,097	629	3,237,223	707	1,889	71
1910	35,793	658	2,608,849	1,598	2,714	74
1911	38,352	667	3,021,493	1,168	1,495	100
1912	40,764	674	2,058,948	582	1,207	98
1913	43,041	690	3,555,330	1,137	2,577	84
1914	46,731	740	4,694,611	1,420	3,741	72
1915	48,736	766	—	958	2,414	—
1916	49,343	772	—	—	2,135	—

The continually increasing membership is explained by the advantages procured by this federation, and also by a very wise provision of the administrative council that members need pay immediately only half instead of the whole amount of a share of 50 liras, paying the rest in three annual instalments.

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* *

5. THE CONSTITUTION OF LA FEDERAZIONE DELLE LATTERIE SOCIALI CREMONESI. — Bollettino dell'Agricoltura, No. 7, Milan, 15 February 1917.

Their common interests and the desirability of an interchange of advice and assistance suggested to the collective dairies in the district of Cremona the idea of forming a federation, and to this the dairies of Soresina, Acquanegra, Sesto, Forcello, Cà de Stefani, Cà de Corti and Piadena have already adhered. The federation proposes to buy on behalf of the federated societies merchandise and products for common use and implements and machines; to furnish information as to the most profitable method of treating milk and the best markets; to act in the markets as an intermediary; to constitute depositing warehouses in order to facilitate advances of funds; and to organize the sale of products and production by specialization, by improvements and by encouraging the foundation of new co-operative societies.

RUSSIA.

FINNISH CO-OPERATIVE DAIRIES IN 1915. — *Suomen Osuustoimin talhti*; Helsingfors, Year 1916, No. 10.

At the end of 1915 there were 421 co-operative dairies in Finland, twenty-one of them having been founded during the year. These societies had 45,000 members, as against 41,500 in 1914 and 39,000 in 1913. Of the members 38.8 per cent. possessed from one to three cows, 53.9 per cent. from four to fifteen, and 7.3 per cent. more than fifteen. In 1913 the corresponding percentages were 38.4, 53.1 and 8.5; in 1911 they were 37.8, 53.9 and 8.7.

The following table shows the number of cows belonging to co-operative dairies and the proportion this bore to the country's total herd from 1912 to 1915:

In 1912 the co-operative societies possessed	250,000 cows or 21.6 % of the country's herd
" 1913 " " " "	255,000 " " 21.7 % " " "
" 1914 " " " "	269,000 " " 22.7 % " " "
" 1915 " " " "	288,000 " " 25.7 % " " "

The increased percentage in 1915 was influenced by the notable reduction in the country's total herd in that year.

From the 421 co-operative dairies 316 million kilogrammes (1) of milk were obtained while in 1914 the 396 co-operative dairies supplied 321 million kilogrammes. The chief cause of the diminished milk production in 1915 was doubtless the fixing of too low prices for butter which led to the slaughter of many milch-cows and thus paralysed all measures taken to increase milk production.

As regards motive power, steam is employed by 266 dairies, hydraulic power by eleven and electricity by seven, while fifty-four are content to use human labour and forty-eight have recourse to animal traction.

The financial position of 330 co-operative dairies at the end of December 1915 was as follows:

Assets		Liabilities	
	Frs.		Frs.
In hand	739,919	Loans granted by the State .	1,144,279
Deposits and credit	4,173,229	Loans granted by the banks	
Real estate	6,131,944	and other loans	2,405,775
Accessory industries	341,250	Capital owned by dairies. . .	6,713,665
Products and plant	1,181,131	Excess of assets over liabilities	2,303,754
Total	12,567,473	Total	12,567,473

(1) 1 kilogramme = 2.2 lbs.

The financial position of the co-operative dairies is thus seen to have been excellent. The following table shows their financial development from 1904 to 1915 :

Year	Assets		Liabilities	
	Real Estate	Other property (in hand, deposits, etc.)	Capital owned by dairies	Loans
1904	83.0 %	17.0 %	23.1 %	76.9 %
1906	84.1 %	15.9 %	26.8 %	73.2 %
1908	81.7 %	18.3 %	34.0 %	66.0 %
1910	77.7 %	22.3 %	46.2 %	53.8 %
1912	67.7 %	32.3 %	60.5 %	39.5 %
1914	63.3 %	36.7 %	63.7 %	36.3 %
1915	51.5 %	48.5 %	71.8 %	28.2 %

An examination of this table will convince the reader that the development of the co-operative dairies has been continuous and rapid. In 1904 they owned hardly a quarter of the capital they employed, but in 1912 they owned much more than half thereof, namely 60.5 per cent. And while their own capital increased the proportion of their real estate to their other property was modified to the advantage of the latter ; which in 1914 constituted 36.7 per cent. of all their assets, being thus equal to their debts (36.3 per cent.), whereas in 1915 the position had much improved.

In 1915 the value of the products sold by the Finnish co-operative dairies was fifty million francs. The average income of a dairy was larger than it had ever been, namely 141,667 francs as against 110,727 francs in 1914 and 113,210 francs in 1913. But most of the dairies — 52.1 per cent. of them — have not yet attained to an annual turnover of 100,000 francs. There were at the end of 1915 nineteen large dairies having an annual turnover of more than 400,000 francs.

The average price of the products was 379.53 francs for one hundred kilogrammes of butter in 1915, as against 281.05 francs in 1914. The correspondent cost of production reached 36.43 francs and the net profit 343.10 francs. If 2 ½ per cent. be allowed for user's amortization a final net profit of 3.34 francs remains on one kilogramme of butter. To produce one kilogramme of butter 24.3 kilogrammes of milk are needed.

UNITED STATES.

THE ACTIVITY OF THE JEWISH AGRICULTURAL AND INDUSTRIAL AID SOCIETY
IN 1916 (1). — From the society's annual report for 1916.

The activity of this society in 1916 was facilitated by the excellent economic situation of the United States and the high prices of agricultural products.

Credit operations extended into thirty-six States; 386 loans were made in the year for a total amount of \$229,827, as against 396 in 1915 for a total amount of \$190,036. Since the number of loans diminished while their total sum increased it follows that the average individual loan was larger: it rose from \$480 in 1915 to \$595 in 1916. This business brought the total number of loans made by the society since its foundation up to 4,100, and the total sum lent up to \$ 2,330,091. At the close of 1916 loans which had not been repaid numbered 1,713 and amounted to \$ 977,423.

The following table shows the chief objects for which loans were made:

Object of Loans	Number	Percentage
Purchase of a farm	47	12
» » agricultural implements	100	26
Building and repair of buildings	62	16
Repayment of mortgage and other debts	166	43
Working capital	11	3
Total . . .	386	100

Non-recoverable credit entered in 1916 in the profit and loss account amounted to \$ 7,227. The total sum which the society has lost under this head is \$ 64,217 or 3.11 per cent. of the total sum lent.

All the others sections of the society have continued to work with the same success as in previous years. The office of agricultural labour placed last year, 1,446 persons or 449 more than in 1915.

The office for co-operative purchase, founded in 1910, not only enabled Jewish farmers to obtain the products they needed at cost price, but also accomplished an educative work, teaching them to use improved machinery and new kinds of seeds, to mix manures, etc. Thanks to the efforts of this section some hundred silos have been installed in recent years. In the seven years for which it has existed the office for co-operative purchase has done business for more than \$200,000.

The first agricultural savings and loan society, organized about two years ago at Centerville (New York) had 157 members at the end of 1916 and a capital in shares of \$ 23,276. It had then granted fourteen mortgages on agricultural real estate for a total sum of \$32,800. The co-operative society for insurance against fire in Sullivan county, founded four years ago, had then issued 504 policies, still active, for a total value of \$ 1,211,395. The business of the year yielded a profit of about \$5,000.

Finally the organization department took particular interest in the application of the Federal Farm Loan Act and conducted an intensive work of propaganda in order to induce Jewish farmers to form, in accordance with the law, national associations of agricultural credit.

Part II: Insurance and Thrift

CANADA.

MUNICIPAL INSURANCE AGAINST HAIL IN SASKATCHEWAN.

OFFICIAL SOURCES :

AN ACT RESPECTING HAIL INSURANCE BY MUNICIPALITIES (Canadian Legislature) 1915, c. 22.

AN ACT TO AMEND THE STATUTE LAW, *ibid* : 1916, c. 37.

A REVIEW OF THE WORK OF THE MUNICIPAL HAIL INSURANCE COMMISSION FOR THE YEARS 1913, 1914, 1915. Regina (Saskatchewan) October 1915.

REPORT OF THE WORK OF THE MUNICIPAL INSURANCE COMMISSION OF SASKATCHEWAN FOR YEAR ENDING 29 FEBRUARY 1916, Regina, March 1916.

OTHER SOURCES :

THE AGRICULTURAL GAZETTE OF CANADA, Ottawa, September 1916.

THE GRAIN GROWERS' GUIDE, Winnipeg, 8 November and 13 December 1916.

THE PUBLIC SERVICE MONTHLY, Regina, Vol. V, No. 5, December 1916.

§ 1. THE SCHEME AS INITIATED IN 1912.

a) *The Hail Insurance Commission.*

In Saskatchewan there is a system of municipal insurance against hail based primarily on the Municipal Hail Insurance Act of 1912. This created a Hail Insurance Commission which has three members of whom the chairman is appointed by and holds office at the pleasure of the Lieutenant Governor in Council, and the other two members are nominated at a meeting of the reeves of the municipalities affected by the Act and are in office for two years. The Lieutenant Governor in Council has however power to fill all vacancies temporarily.

The constitution of the Commission was intended to secure it from political influence while making it responsible to the people, and to give it continuity. The Commissioners receive salaries fixed by the Lieutenant Governor in Council and their travelling expenses are reimbursed to them ; and they appoint a secretary-treasurer who is paid for his services as they decide. They form a legal corporation. All salaries of the Commission and its officers are paid out of the funds held by it under the Act.

b) *Qualification for Insurance.*

It is the municipalities who are insured under the Act. Any municipality in Saskatchewan may benefit by its provisions, and therefore enter the sphere of the Commission; but such participation is in every case entirely voluntary. The council of a municipality may at any meeting held between 1 August and 1 October in any year resolve to submit to the electors at the next ensuing annual election a by-law of a stipulated form empowering the municipality to insure under the Act. This will receive its first and second reading only in response to a demand made before 1 November in any year, in a petition signed by at least 25 per cent. of the resident ratepayers of the municipality; on receipt of which the council will put the by-law to the vote as soon as possible.

The right to vote on the by-law belongs to persons owning or occupying or having an interest in lands within the municipality not exempted from payment of the insurance tax.

The voting is by ballot and votes are recorded on especially provided forms. If the majority of voters assent to the by-law it is finally passed on 10 January next after the poll; and within the month two copies of it, and a certified statement as to the number of votes recorded for and against it, are sent to the minister. It is valid from the day on which a notice of the minister's approval of it appears in the *Saskatchewan Gazette* and the minister immediately informs the Hail Insurance Commission that it is in force.

c) *Assessment of Premiums.*

Subsequently the secretary-treasurer of the municipal council is obliged to publish before 1 May in every year and in two successive weekly issues of a local newspaper an intimation, according to a prescribed form, that the lands of the municipality are liable to assessment under the Act. Lands held under a grazing lease from the Dominion of Canada and lands within any hamlet are exempt; and exemption for the current year may be claimed for lands belonging to certain specified categories. Claims for exemption are made to the municipal council before 1 June, and if successful are sent by the council to the Commission, who may cancel the exemption.

All non-exempted lands of a municipality which has come under the Act are liable to be assessed by the Commission at the rate of four cents an acre. The full amount of the rate, less the cost of printing the special hail insurance tax notice and charges connected with remittance, is sent by the municipality to the Commission. The risks are thus shared equally by all the municipalities under the Act, a circumstance which gives this system of insurance its truly co-operative character.

d) *Indemnification for Loss.*

Owners and lessees of land insured under the Act are entitled to indemnification at the rate of five cents an acre for every one per cent. of damage by hail incurred by their crops between 16 June and 15 September: in other words for every acre on which the crops have been totally ruined they receive \$ 5.00. The Act of 1912 provided no indemnification for losses amounting to less than ten per cent. of the crop. Notice of the damage must be given within five days of the date at which it is sustained, by registered letter to the secretary of the Commission at Regina, and must be in the form of a full statement witnessed and verified by a neighbour. The secretary of the Commission delivers this statement to an inspector who verifies it and reports on it.

All acknowledged claims must be met by the Commission before 15 December in each year, unless the Commission consider that its revenues do not permit of full payment, in which case claims must be met *pro rata*.

No money due as indemnities can be assigned or garnisheed.

§ 2. THE FIRST THREE YEARS OF INSURANCE.

For three years the Municipal Hail Insurance Act justified most of the hopes entertained for it.

a) *The Field of Insurance.* — The manner in which the farmers of Saskatchewan took advantage of the provisions of the Act proved that it supplied a real need, and seemed to prove also that it supplied it adequately. At the first municipal elections held after the Act had been passed one hundred and fifteen municipalities voted the by-law which brought them within the sphere of insurance, and as a consequence some twenty million acres of land, of which approximately five million were under crop, were automatically insured against damage by hail. At the next municipal elections, those of the autumn of 1913, three municipalities repealed the by-law but it was passed by an additional number of fourteen, thus giving a net increase of eleven in the total number insured, which was thereafter 126. After the elections of 1914, 127 municipalities were under the Act and 22,000,000 acres or 34,000 square miles of land — of which 7,000,000 acres were estimated to be under crop — were in consequence insured for 1915. The working of the scheme in this year gave such satisfaction that after the elections in the autumn of 1915, 139 municipalities were under the Act.

The complete freedom to repeal the insurance by-law in any year probably caused it to be voted willingly, the municipalities feeling that they were not committing themselves to the system permanently but merely making trial of it. One municipality passed the by-law in 1913, repealed it in 1914 and passed it again in 1915: in this case the ratepayers paid the hail insurance tax in 1913 and 1915 but not in 1914.

It was very noticeable that the municipalities which were the later adherents to the scheme adjoined others previously in enjoyment of its

benefits. In other words this form of insurance had the advantage of the most legitimate of forms of all advertisement.

b) *The Minimum of Indemnifiable Loss.* — Under the Act of 1912 no farmer could claim indemnification for a loss of less than 10 per cent of his crop. It was deemed advisable to lower this minimum, by an amendment passed in 1915, to 5 per cent. Since the rate fixed by the Act of 1912 was five cents for one per cent. of damage, the minimum indemnity payable came to be 25 cents an acre.

c) *Withdrawal of Lands from Insurance.* — A criticism of the scheme is that it causes all lands to be taxed for insurance against hail alike, whether or not they are cultivated. Its defenders point out that this system allows the tax to be comparatively low, and moreover brings under contribution — ultimately to the benefit of the farmers — the big land companies and speculators who do nothing to enrich the country. From the beginning however certain categories of land were exempted, as has already been said, from obligation to pay the tax — in practice lands permanently under grass and the sites of villages —, and exemption for one year can be obtained for lands belonging to certain other categories. The latter were modified by the amendment to the Act passed in 1915; and as the law afterwards stood they included :

1) Lands which comprise one or more quarter sections in area, are completely surrounded by a substantial fence of not less than two strands of barbed wire upon posts not more than 33 feet apart, and are used exclusively for grazing and for growing hay, only by the person who wishes to withdraw them from insurance.

2) Unpatented quarter sections held under homestead, pre-emption or purchased homestead entry, having less than 25 acres under cultivation. The ability to withdraw these allows new settlers and others who have only a small holding of cultivated land, exclusively on unpatented lands, to avoid paying the hail insurance tax until their lands are patented or until they come to be grain growers on a large scale.

3) A patented or unpatented quarter section in which less than 25 acres is under cultivation and the remaining land fenced as described under 1). The provision for the withdrawal of land of this category is made in the interests of certain parts of the country where most of the land is grazing land and only a minor portion arable.

d) *Inspection of Damage for which Indemnity is Claimed.* — This very important part of any scheme of insurance was inevitably found to admit of improvement after experience of it had been gained.

In 1914 the Commission provided that any claimant who was dissatisfied with the inspector's estimate of the damage his crop had incurred might ask to have it re-inspected. The system of re-inspection thus inaugurated proved to be so useful that in 1915 the Commission further provided that if after re-inspection the claimant were still dissatisfied, his claims could be referred to two arbitrators, one chosen by himself and the other by the chief or general inspector, and that these, after they had inspected the crop in question, had power to call in a third person who should de-

side points on which they could not agree. The Commission's regulations as to this provision are printed on the back of the report which the inspector leaves with the claimant after his first inspection. Only two claimants availed themselves of the provision in 1915, and in both cases the two arbitrators agreed without calling in a third person and the award was not increased but reduced.

Two general and twenty-one regular inspectors were employed in 1915, all of them then or recently engaged in farming and eleven of them reeves or councillors of a municipality at the time of their appointment.

e) *Finance.* — The following figures show the financial working of the scheme before 1916.

Year	Number of Municipal- ities under the Act	Net Revenue	Number of Claims Received	Amount paid in Claims	Costs of Administration
1913	115	\$ 788,389.50	5,300	\$ 756,960.11	\$ 26,928.52
1914	126	896,365.26	3,568	512,900.75	30,020.24
1915	127	917,293.96	3,991	670,809.42	35,871.51

These results were received as evidence of a great success by the Hail Insurance Commission. Nearly two million dollars had been paid to the farmers in indemnities; in 1914 and 1915 payments, aggregating \$ 35,000, had been made into a tax adjustment reserve fund; and a surplus of more than half a million dollars had been accumulated.

In the report issued early in 1916 the Commissioners laid stress on the economical nature of the scheme they administered. They stated that out of every dollar collected from the farmers 73 cents had been returned to them in the form of indemnities, 21 cents were held as a reserve fund against future abnormal losses, and only 6 cents were absorbed by the expenses of the Commission and the commission paid to secretaries of municipalities. In the case, however, of nineteen private insurance companies, which were the rivals of the Commission in the province, only 37 cents out of every dollar collected were returned to the farmers in the form of indemnities, and the remaining 67 cents went to pay expenses and make the profits of shareholders. The insurance effected by the Commission would, if it had been carried on by private companies, have cost the farmers \$ 3,000,000.00 more than had been the case.

The Commission had originally no power to borrow money except for administrative purposes. It was however deemed advisable to invest a portion of the surplus, and therefore the Act as amended in 1915 allowed the Commission to borrow money for any purpose, using its securities as collateral.

f) *Additional Insurance.* — There was some discontent with the amount of indemnities received for losses. It was stated that when a crop was en-

tirely ruined by hail the indemnity of \$ 5 an acre compensated not for the full value lost but only for the cost of putting the crop in. To meet this complaint the Commission, as empowered by the amendments of 1915, inaugurated a system by which farmers in municipalities already under the Act might, by applying to the secretary of their municipality, pay an additional rate of 5 cents an acre, and thus insure their crops for an additional \$ 5 an acre, or \$ 10 an acre in all.

Participation in the additional insurance thus initiated was naturally confined to grain growers within the 139 municipalities under the Act, and even on their part it was entirely voluntary. There was therefore a danger that risks would not be sufficiently distributed. The Commissioners stated that to guard against this they had in the first place employed agents in all the municipalities under the Act to solicit adherence to the scheme for additional insurance; and in the second place had arranged with several good insurance companies for reinsurance, in every district where risks which could not easily be faced were in the least likely to occur. The rate of 5 cents an acre was less by one cent than the usual rate, but the Commissioners claimed that this fact was justified by the economy of their administration.

According to an approximate estimate published in September 1916 the value of the additional insurance in force was \$ 2,000,000 and the total revenue from insurance \$ 1,000,000.

§ 3. THE BREAKDOWN OF THE SCHEME.

a) *The Results of 1906.*

In a review of the first three years of their labours published at the end of 1915 the Commissioners hint at a possible eventual abatement of the assessment rate of 4 cents an acre for insurance under the Act of 1912. "It is the intention of the Commission", they say, 'to maintain the 4 cent assessment rate at least until the reserve fund equals one year's revenue, thus placing its finances upon a sound basis so that claims can be settled earlier in the season'".

But far from bringing them nearer a point at which they can lower the rate, 1916 has proved the whole financial basis of this scheme for insurance to be unsound. The following figures summarize the business of the year :

Number of municipalities under the Act. . .	139	
Approximate acreage under crop insured. . .	7,000,000	
Number of Claims	10,000	
Amount of Claims	\$ 3,600,000	} \$3,650,000
Expenses	\$ 50,000	
Revenue		\$ 950,000
Deficit on the year		<u>\$2,700,000</u>

In connection with this formidable deficit further remarks from the official review issued late in 1915 may be cited. "The hail insurance levy of 5 cents per acre amounting to only \$ 6.40 for 160 acres is a very small premium to carry a risk of \$ 800, which is the case where all the acreage is under crop... In other words it takes 4 cents per acre levy upon 125 acres to pay... \$ 5 upon one acre destroyed by hail".

It is instructive to compare with the results obtained by the Municipal Hail Insurance Commission those reached from 1913 to 1916 by private companies insuring against hail in Saskatchewan.

In the aggregate they were as follows :

Year	Premiums	Losses
1913	\$783,194.42	\$485,305.79
1914	747,838.68	173,443.44
1915	1,363,001.66	438,619.57
1916	1,417,853.21	1,872,408.75

The following table shows the gross income and gross losses of each company insuring against hail in the province in 1916.

Name of Company	Premiums	Losses
St. Paul Fire and Marine Insurance Company	\$ 54,802.10	\$ 86,251.54
Middle West " "	39,662.35	49,690.94
Excess " "	102,437.75	130,739.14
Acadia Fire " "	31,860.86	66,593.02
Canadian Indemnity " "	82,582.10	124,728.45
Canada Hail " "	72,542.95	95,127.67
" National " "	95,685.18	193,055.43
Rochester Underwriters' Agency " "	20,909.56	29,243.26
British American Assurance " "	48,176.13	64,539.13
Winnipeg Fire Underwriters' Agency	3,150.96	3,887.50
Nova Scotia " "	9,657.87	11,686.87
Home Insurance " "	102,646.13	176,608.61
Canada Security Assurance " "	70,898.97	83,934.80
British Crown " "	193,517.89	213,330.37
Canada Weather Insurance " "	21,420.63	17,391.56
American Central " "	18,155.41	49,823.07
Connecticut Fire " "	13,553.45	24,312.05
Hartford " " "	96,360.96	112,592.95
New York Underwriters' Agency	26,192.80	30,023.13
Great North Insurance " "	60,474.21	56,780.99
Northwestern National Insurance " "	111,751.48	114,692.84
Dominion Fire " "	37,282.47	26,439.05
Glens Falls " "	80,987.46	76,827.06
Westchester Fire " "	23,143.54	34,209.32
	<u>\$ 1,417,853.21</u>	<u>\$ 1,872,408.75</u>

The expenses of the private companies in 1916 averaged 30 per cent of their premium income. Since the losses were equivalent to about 132 per cent. of such income they owed, at the end of 1916, 162 per cent. of the total amount they had received in this year. The position was sufficiently serious, yet vastly less so than that of the Municipal Insurance Commission which, in spite of its much more economical administration, would have had to pay 394 per cent. of its premium income in order fully to indemnify losses at the rate of \$ 5 an acre.

The private companies were able to meet all claims on them from their reserves. The Municipal Hail Insurance Commission was under no obligation to pay full compensation at the \$ 5 an acre rate, for a clause, already cited, of the Act of 1912 provides that if the Commission consider that its revenues do not permit of full payment it shall meet claims *pro rata*. Only the 127 municipalities which were under the Act before 1916 had any claim to the reserves accumulated from surplus income before that year. It was calculated that the Commission was in a position to indemnify the farmers of these 127 municipalities for their losses at the rate of about \$ 2.15 an acre; and those in the remaining thirteen municipalities, who had no claim on the reserves, at that of about \$ 1.30 an acre. Indemnification at these rates could not go far to compensate for the actual loss, in view especially of the fact that the destruction of a large part of the crop would enormously raise the price of seed.

b) Defects of the Scheme.

1) As regards the causes of the breakdown the first defect in the municipal hail insurance scheme brought to light by the breakdown of 1916 was that it had been based on an *inadequate estimate of risks*.

The rate of premium allowed for an average annual loss of 4 per cent. of the total crop. The loss in 1913 was 3 per cent., in 1914 it was $1\frac{3}{4}$ per cent., in 1915 it was 2 per cent.: the average annual loss for these three years was therefore $2\frac{1}{4}$ per cent. But in 1916 the loss was 10 per cent. and thus for the four years the annual average was 5 per cent. or 1 per cent. in excess of the estimate. Hence the failure of the scheme. It is stated that an absolute annual average should be calculated on a period of from fifty to seventy-five years, and that no period of less than twenty-five years can give dependable data.

2) The scheme was therefore speculative. It was so in a second respect because while it competed with firms affording absolute insurance, the measure of insurance it actually gave was *hypothetical*, being limited by the *pro rata* clause. It is clear however that the commissioners advertised their benefits as equivalent or superior to those afforded by the private companies, and that the insured farmers considered that their crops were unre-servedly insured against hail at the rate of \$ 5 an acre. Further the public character of the scheme seems to have given some of these farmers an idea that their compensation at this rate was guaranteed by the government. Thus a mass meeting held at Venn after the breakdown of the scheme

resolved "that the provincial government be requested to loan the Commission enough money to pay all claims in full".

§ 4. THE PROPOSED AMENDEMENT OF THE SCHEME.

A very general desire was shown by Saskatchewan farmers for the continuance of the Municipal Hail Insurance Scheme in an amended form.

It had been abundantly proved that insurance of this nature, since it was not profit-making but co-operative, and since it could be administered by the municipal organization, was less costly than the insurance afforded by private firms if it could but be made equally secure. But under the existing scheme farmers could not have complete protection unless they insured with a private company the risk left uncovered by the Commission.

Representatives of the rural municipalities under the Municipal Hail Insurance Act held a convention to consider the amendment of the scheme. At this meeting 39 municipalities did not vote or were not represented, but 78 voted in favour, and only 22 against, the full payment of all the claims of 1916. Proposals for amending the scheme were submitted to the convention and all of them provided for a) such full payment, b) the rendering absolute of insurance as afforded by the scheme.

Subsequently the convention appointed a committee consisting of the three Commissioners, the secretary of the Grain Growers' Association and five representative of the municipalities; and these, at meetings held in Regina from 10 to 27 November 1916, considered the proposals submitted to the convention and other suggestions for amending the scheme. Their report was presented to the reeves and representatives of rural municipalities under the Act and to the provincial government on 27 November.

a) *Provision for Meeting Losses of 1916 in Full.*

The committee offered two alternative suggestions for the meeting of the losses of 1916 in full.

1) They proposed that the ratepayers should be consulted as to whether they would agree to a special levy of 2 cents an acre during 1917 only, the amount accruing from such levy to be applied in part payment of the losses of 1916.

2) They proposed that the rural municipalities under the Act should have an opportunity of voting as to whether they would accept responsibility for the 1916 deficit, on condition that if not less than eighty of them agreed to meet their proportion of such deficit, such eighty would be required to make provision, by sinking fund, debenture issue or otherwise or through the commission, to meet for ten years an annual call for not more than \$3,000 from each municipality.

b) *Provision for Making Insurance Absolute.*

1) *Suggested Plans.* — The committee pointed out in their report that insurance could be made absolute by three methods: by the possession of a surplus of other assets equal to the insurance at risk; by a mutual company in which each of the insured would agree to pay the levies in full in any year; or by an unknown compulsory tax upon the land.

The first of these expedients was out of the question because the 1916 losses would leave over neither surplus nor current revenue, and the assets providing for the future were limited. The second method was only applicable to a scheme under which individuals voluntarily applied for insurance.

The third method if applied in its simplest form would involve the levying on all assessable lands, at the end of any year in which revenue had been inadequate to paying indemnities at the agreed rate, of a tax sufficient to cover the deficit. Such additional assessment would in 1916 have been 16 cents an acre if this method of indemnifying at the rate of \$5 an acre had been adopted. The full cost of insurance in that year would therefore have been 20 cents an acre.

The committee did not deem it wise or just to burden the land with liability to such a tax. Even so important a matter as insurance against hail did not, in their opinion, justify this placing on the land, which already contributed largely to public objects, of a burden which could not be estimated beforehand and might be very onerous.

Under the existing system holders of land in municipalities under the Act are in the position of members of a limited mutual company in which the majority, who are grain growers, compel not only themselves but also the minority, who are not grain growers, to pay a fixed charge upon their lands in order to protect only the grain growers. Proposals were therefore made which sought to limit liability to an additional tax to grain growers.

The details of one of these plans may be given. It aimed at ensuring that those actually enjoying protection should have full mutual responsibility for the insurance; and that a sufficient accumulated surplus should be procured to give ample protection in case of a year or years of extraordinary loss. It proposed therefore that neither the 4 cent per acre assessment rate nor the \$5 maximum indemnity should be altered; but that an extra and variable rate beginning at 12 cents an acre should be levied on all crops at risk, which rate should be lowered only when a surplus equal to 10 per cent. of the risk carried had been accumulated. Any farmer was to be allowed to withdraw his crop acreage from this assessment by foregoing all claim upon the protection of the Commission. No municipality was to be permitted to withdraw from the scheme while it was indebted to the Commission, or in any circumstances without two years' notice. The Commission was to have power to levy on the insured crop acreage an emergency rate, not exceeding 20 cents an acre in any one year, with which to meet

any deficit which might occur. Should this be insufficient a *pro rata* distribution of available funds was to be made among claimants, and any remaining deficit paid out of the possible surplus in the succeeding year, or if this should fail by means of the levy of another and similar 20 cent rate.

This and kindred plans were however rejected by the committee on the grounds of impracticability. "A great deal has been said and written", they state in their report, "about making an assessment upon the assessed acreage or upon the 'excess seeded acreage'. We have fully discussed the advisability of making an assessment of this kind and our opinion is that such assessment would not be practicable at the present time. In the course of a few years it might be possible to provide the administrative municipal machinery necessary to secure the accurate information upon which such an assessment must be based, and which would have to be secured yearly prior to 15 June from each individual ratepayer. To make such an assessment in 1917 would be practically impossible without a heavy expense being incurred in each municipality. The 'excess seeded acreage' assessment is a more or less complicated form of assessment upon the seeded acreage basis".

2. *Plan adopted by the Committee.* — The proposal of the committee was that "the revenue of the commission be raised by a flat rate of 6 cents per acre upon all assessable lands in the municipalities except such as are withdrawn and that the *pro rata* clause be retained".

The adoption of the committee's proposal by the legislature will therefore leave the insurance still hypothetical, in theory if not in practice. The committee in substance declined the responsibility of making a proposal for guaranteed absolute protection. "There is no doubt", runs their report, "that reliable data to place hail insurance rates upon cannot be secured; hail insurance has not been in general operation long enough to provide such information, we can only use such figures as are available and when we recommend an increase of 50 per cent. over the existing rate, and when we consider that if such a rate had been in operation from the inception of the scheme all the losses including 1916 could have been paid in full, we believe that we are recommending a rate that will not be oppressive, that will not depart from the present method of assessment, that will give full protection in ordinary years and a fair protection in disastrous years, a rate that the ratepayer will know is the maximum amount that can be charged upon him, and a rate that will place the present system upon a safer and sounder financial basis than it has been on heretofore".

The committee further proposed that the Commission should be disabled from reducing the fixed rate of premiums "until a surplus has been accumulated which together with the current rate would equal 12 per cent. of the risk carried".

c) *Further Amendments Proposed.*

As regards lands which may annually be withdrawn from insurance, the committee proposed that the second and third categories of these should include patented or unpatented quarter sections, as already described,

in which less than 40 acres were under cultivation, instead of 25 acres as at present. They proposed also to add to these categories two others — namely holdings of not more than 640 acres of land of any owner or occupant, of which one fourth or more were under cultivation ; and holdings of like extent of which one half or more were under cultivation — and proposed further that land in these two additional categories might be withdrawn for three years.

They proposed to render it necessary to give notice of damage incurred by a crop to the secretary of the Commission within three days of the fall of hail, instead of within five days as at present.

They proposed that the Act should be administered by a board of nine directors who should be elected by the annual meeting of the reeves of the municipalities under the Act, nine to be elected by the first meeting and thereafter three each year.

Finally they proposed that the government should be asked to provide that all rural municipalities which did not submit a repealing by-law, upon a petition signed by fifty resident ratepayers, and did not approve such by-law before a date in 1917 yet to be fixed, should automatically remain under the amended Act.

In presenting their report to the municipalities the committee stated that they intended to meet again before the amending legislation was enacted, and expressed themselves ready to receive suggestions made after the report had been considered in the municipal councils or the annual ratepayers' meetings.

Part III: Credit

RUMANIA.

AGRICULTURAL CREDIT IN RUMANIA.

OFFICIAL SOURCE :

ANURUL STATISTIC AL ROMANIEI (*Statistical Yearbook of Rumania*). — Bucharest, 1912.

OTHER SOURCES :

SERBAN (Dr. M.): Rumäniens Agrarverhältnisse (*Agrarian Relations in Rumania*). — Berlin, 1914.

KEILHAUER (A. V.): Die Entwicklung der ländlichen Kreditinstitute in Rumänien (*The Development of Rural Credit Institutions in Rumania*). — Fribourg, 1912.

CREANCA (Dr. G. D.): Grundbesitzverteilung und Bauernfrage in Rumanien (*The Distribution of Landed Property and Agrarian Questions in Rumania*). — Leipzig, 1907, 1909.

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§ I. AGRICULTURAL CREDIT.

For an examination of agricultural credit in Rumania some economic data are necessary as to the agricultural class ; for in this country more than elsewhere there has been a division of labour among the different institutions giving agricultural credit, and this division is based on the differences between the agricultural classes.

Until 1862 the feudal system obtained in Rumania. All the land belonged to a limited class of feudatories, who were called boyards and numbered about 5000, and it was cultivated by 470,000 families belonging to the class of land serfs. The class of small proprietors was represented only by the 100,000 families of the Mosneni in Vallachia and the Rasesi in Moldavia.

Side by side with individual feudatories the State and the churches and monasteries held vast territories.

In 1862 the feudal system was abolished. The law of 15 August 1864 ordered that part of the property of the feudatories should be distributed among the cultivators. Later in 1866, 1869, 1876, 1881 and 1889 the distribution of the lands belonging to the State and the churches was ordered ; and in 1908 a rural bank was formed with the object of granting credit to the farmers in order that they might buy land

Nevertheless the distribution of landed property in Rumania is far from satisfactory, as is seen from the following table :

62,832	farmers have less than $\frac{1}{2}$ -	hectare (1) that is	26,426	hectares or	0.34 %
81,039	" " " $\frac{1}{2}$ -1	" "	72,757	" "	0.93 %
147,900	" " " 1-2	" "	237,029	" "	3.01 %
131,630	" " " 2-3	" "	337,000	" "	4.30 %
172,446	" " " 3-4	" "	631,964	" "	8.08 %
148,717	" " " 4-5	" "	711,033	" "	9.08 %
<hr/>					
744,564	" " " 5	" "	2,016,209	" "	25.74 %
<hr/>					
176,375	" " " 5-10	" "	1,137,136	" "	14.55 %
36,318	" " " 10-50	" "	695,953	" "	2.13 %
2,405	" " " 50-100	" "	166,847	" "	8.89 %
38,723	" " " 10-100	" "	862,800	" "	11.02 %
4,171	" " " more than 100	" "	3,810,351	" "	48.69 %

Side by side with this class of farmer-proprietors there is one of landless agriculturists which comprises from 250,000 to 300,000 families.

The table we have given shows that there are two classes of landed proprietors in Rumania :

1) Farmers owning a small property of less than 10 hectares. This class is represented by about 920,939 families who own altogether 3,153,675 hectares or 40.29 per cent. of the cultivated land.

2) The class of large proprietors, owning more than 100 hectares, is represented by 4,171 families owning altogether 3,810,351 hectares or 48.69 per cent. of the cultivated land.

Besides these classes there are that of the landless agriculturists, represented by from 250,000 to 300,000 families ; and that of owners of medium-sized properties, of from ten to a hundred hectares, which is represented by only 38,723 families who own 862,800 hectares or 11 per cent. of the cultivated land.

The work attached to credit transactions with large and with small proprietors has been divided among the various institutions of agricultural credit. Those dealing with the large proprietors are :

- 1) *Creditul foncier rural*,
- 2) *Banca agricola*.

Those dealing with the small proprietors are :

- 3) *Creditul agricol si viticol*,
- 4) *Bancile populare*,
- 5) *Casa rurala*.

We will deal with these institutions later.

§ 2. RURAL LAND CREDIT (CREDITUL FONCIER RURAL).

The first credit institution in Rumania to do business in mortgage credit was the Moldavian Bank formed in 1856. This was a stock company, formed with foreign capital, which in addition to its other banking business granted short or long-term mortgage credit to large proprietors. The long term mortgages were redeemable in seventeen years, the mortgagers being obliged to pay ten per cent. as interest and amortization quota.

Towards 1860 this bank ceased to deal in credit and from that date its only transaction within that sphere has been the liquidation of business then in course.

In 1872 the government brought before the chamber a scheme for the formation of a mortgage bank. According to this scheme the bank would have been a stock company and would have enjoyed the monopoly of granting mortgage credit and issuing mortgage titles on the basis of the credit granted. It would have been authorized to grant to landowners not only mortgage credit but also short-term credit for working funds, and to make advances to the State and the communes.

The scheme encountered in the chamber the lively opposition of the large proprietors who criticized it vehemently under the three following heads;

1) They proposed that instead of a stock-company there should be a co-operative society of large proprietors based on the principle of collective liability.

2) They proposed that there should not be a single institution enjoying a monopoly of the business of mortgage credit, and the issue of mortgage titles, but that the law should prescribe the conditions on which such business should normally be done, so that every society of landowners would have to fulfil these conditions before it would be authorized to grant credit or issue mortgage titles.

3) Finally they proposed that the task of granting mortgage credit on rural and on urban lands should be divided among the institutions.

These proposals were all passed by a majority in the chamber and were reproduced in the law of 5-17 April 1873.

Under this law sixty large proprietors having property worth at least three million francs (1) were authorized to form a mortgage bank, if they would accept the clause imposing collective liability. The bank was to have the form of a co-operative society which could have no members other than landowners. The entrance of these into the society was to be optional; but all landowners receiving credit were to be considered as members *ipso facto* and to be collectively responsible for all the bank's engagements to the extent of the value of their mortgaged lands. The law prescribes the division of functions to obtain between banks granting mortgage credit on

(1) 1 franc = 9 $\frac{3}{8}$ d at par.

cultivated land and those granting it to proprietors of urban land. It makes the maximum rate of interest 7 per cent.

On the basis of this law there have hitherto been founded: a mortgage bank for granting credit to proprietors of rural lands, and two mortgage banks — at Bucharest and Jassy — for granting it to owners of urban land. We will here deal only with the first of these banks which was founded 1-13 June 1873 at Bucharest and is called the *Prima Societate de Creditul Fun- ciar Ruman* (First Society of Rumanian Land Credit).

The following are the chief characteristics of this bank :

1) It has no capital in shares, that is its members pay no admission fee. A due of 2 per cent. is however levied on the credit granted, and thus is formed a guarantee fund which remains in the bank until the debt is extinguished. When it has been extinguished the mortgager receives the whole deducted sum without interest. Side by side with this guarantee fund there is a reserve fund, formed of : a) $\frac{1}{4}$ per cent. on all credit granted ; b) 90 per cent. of net profits. The reserve fund is the bank's property and is restored to the mortgagers only after the extinction of debts. The deduction of $\frac{1}{4}$ and 90 per cent. is interrupted as soon as the reserve fund amounts to 5 per cent. of the amount of existing debts.

2) The bank grants credit only to owners of rural land. The grants are for long and short terms. Long-term credit (ten to sixty years) is secured by a first mortgage of rural lands and may not be for more than 50 per cent. of the value of the mortgaged land. The debt is extinguished by annual amortization. Short-term credit (three to ten years) is also guaranteed by a first mortgage on rural lands : the debt is extinguished by annual amortization or it is repaid in a single sum. Mortgagers used in the bank's first years to pay interest at the rate of 7 per cent. but this rate is now 5 per cent.

3) The mortgager receives the amount of his advance in mortgage titles at par. He must himself place them on the market for securities. When he pays the amortization quota of his debt he may do so in cash or in mortgage titles at par.

The mortgage titles are payable to bearer in sixty years, and all State banks accept them as security. Until 1881 they produced interest at the rate of 7 per cent. The rate was in that year reduced to 5 per cent. and titles previously issued were then convertd. Since 1898 only mortgage titles at 4 per cent. have been issued. Those at 5 per cent. have not however been converted so that both are in circulation.

4) Until 1882 the bank was authorized to grant credit secured by mortgage titles, but business of this nature has since been forbidden and suspended.

5) The administrative council has eight members elected by the general meeting. Side by side with it there are the managers, namely one manager and two vice-managers, all nominated by the administrative council. The right of inspection belongs to a government commissioner nominated by the Minister of Finances.

6) A deduction of $\frac{1}{2}$ 90 per cent. is made from net profits in order to

form a reserve fund ; the remaining 10 per cent. is divided among the members in proportion to their amortization payments.

The business of 1914 gave the following data :

Guarantee fund	10,600,900 francs
Reserve "	30,400,826
Credit granted	467,613,834
Mortgage titles in circulation . . .	467,585,964
namely { at 5 per cent . . .	327,385,112.50
" 4 " " . . .	140,200,851.50

Altogether 2,000 properties were mortgaged.

§ 3. THE AGRICULTURAL BANK (BANCA AGRICOLA).

Besides the *Creditul foncier rural*, which gives land credit to large proprietors, there is the bank called the *Banca Agricola* which provides them with working capital. It was founded in 1894 on the basis of the law passed on 28 March of that year. It is legally a stock company. During the parliamentary debate on the law cited, in 1893-1894, the large proprietors proposed the formation of a society based on the principle of the collective liability of all its members, but this proposal was not accepted and the bank retained the form of a stock company, in accordance with the government's scheme.

The bank has its headquarterst at Bucharest ; and has five branches — at Braïla, Jassy, Constanza, Craiova and Galatz —, and twelve agencies, — at Botosani, Buzen, Calafat, Calarasi, Palticeni, Guirgni, Roman, Fecuci Fulcea, Văseni, Ramnicu-Sarat and Turnu-Magurele.

Its capital in shares is 7,938,125 francs, divided into 24,425 shares of 325 francs each. A capital in shares of 12,212,500 francs was at first anticipated, that is 24,425 shares of 500 francs each. Before however it was completely paid up a reduction of 175 francs a share was made. This capital in shares can, if need be, be brought up to twenty million francs.

The *Banca Agricola* receives, in addition to its own capital, outside capital : a) credit granted by the national bank ; b) deposits of individuals. It may also issue bonds (Kaesabons) secured by the credit it has granted. These bear the number of the credit operation on the security of which they have been issued, and may be in circulation for a month or more. The total sum of bonds in circulation must not exceed 50 per cent. of the paid-up capital.

The business of the *Banca Agricola* is as follows :

1) It grants credit secured by pledged property — cereals, live stock and agricultural implements — and on warrants. The cereals may be pledged before the harvest. The credit granted may not exceed 50 per cent. of the value of the pledges, or — if granted before the harvest — 30 per cent. All pledges must be insured.

2) It opens current accounts on the security of values.

3) It discounts and rediscounts bills.

Transactions of these three descriptions are for short terms, the loans falling due in from three to nine months. The rate of interest varies with that of the National Bank but may not surpass 3 per cent.

Further the *Banca Agricola* undertakes the following business: it receives payments on behalf on its clients; it buys and sells provisions on commission; on behalf of its clients it undertakes all the business connected with the storage of merchandise etc. By the law of 1906 it is authorized to found general storehouses and to store merchandise, but it has not yet begun business of this sort.

The management of the bank in 1911 furnished the following figures:

Capital in shares	fr.	7,938,125.00
Reserve fund	"	3,366,630.54
Deposits	"	20,684,405.05
Debts on rediscounted bills . . .	"	10,036,976.96
Current liability accounts at the Na-		
tional Bank	"	11,405,932
Various current liability accounts .	"	8,152,623
Advances on cereals	"	8,082,166.33
" " values	"	10,781,032.10
Current credit accounts	"	18,658,695.43
Credit in bills	"	16,016,601.41
Various assets	"	7,787,542.75

§ 4. THE CREDIT INSTITUTIONS FAVOURING SMALL PROPERTIES. THE "CASA RURALE".

This rural bank was formed in 1908. The special law passed on 4 April 1908 aimed at providing credit for landless agriculturists or those having only a very small property, thus enabling them to buy land or increase their property. The tendency of the law is thus to create small proprietors.

The formation of small properties was from 1862 part of the economic programme of the Rumanian government. In that year the feudal system was abolished. Soon afterwards, in 1864, the law was passed as to the compulsory sale of part of the property of large proprietors. In subsequent years — 1866, 1869, 1876, 1881 and 1889 — the laws were passed as to the distribution of the lands of domains and churches among landless farmers or those owning only a very small property. The distribution of landed property is however still far from being reasonable. The excessive increase of the agricultural population on the one hand and the laws on succession on the other have attenuated the effects of the laws we have enumerated, so that the commission of enquiry nominated after the peasants' revolt of 1907 could state in its report:

1) that from 250,000 to 300,000 agricultural families had no property;

2) that 423,401 agricultural families, or 46 per cent. of their whole number, owned less than three hectares, which in view of the fact that extensive agriculture prevails may be taken to be insufficient for the maintenance of a family.

Thus from 673,000 to 723,000 families are constrained to seek work on the estates of the large proprietors.

The first scheme for the formation of a rural bank dates from 1897. The Minister of the Public Domain, P. S. Aurelian, presented to the chamber a scheme for the formation of a rural bank as a credit institution of the State. But the change in the ministry which took place soon afterwards delayed this scheme.

In 1906 the question was again inserted in the agenda. A commission, to which D. Strudza, J. Bratianu and G. D. Creanga belonged, was then nominated and charged to recast Aurelian's scheme. The commission drew up an entirely new scheme which it presented to the chamber in 1908; and having been voted by Parliament and received the royal sanction the law entered into force on 4 April 1908.

The Rural Bank has its offices at Bucharest. Legally it is a stock company. Its capital in shares is of ten million francs divided into 20,000 shares of 500 francs each. Half the shares were subscribed by the State which at once paid up 60 per cent; the other half were subscribed by individual capitalists who must pay up at least 10 per cent. of their subscription. The shares are nominative and can be bought only by Rumanians. The capital in shares may be brought up to the sum of 20,000,000 francs on condition half the shares are acquired by the State. Besides its capital in shares the bank obtains credit from the National Bank and capitalists by its issue of rural bonds.

The following business is undertaken by the bank :

1) The purchase of domanial landed property and private property in order to divide it into parcels and sell it to landless agriculturists or small proprietors, and exceptionally to the communes or the State. Where the purchase of State lands is concerned no legal provision limits the action of the Rural Bank. In the case of private property the law forbids the purchase of estates of less than 200 hectares. It is clearly the aim of the law to preserve medium-sized properties.

The Rural Bank pays the price of the land to the sellers either in cash or in bonds. These bonds bear interest at the rate of 5 per cent. and are amortizable in fifty years. They are issued on the security of the mortgage credit afforded by the bank to agriculturists or the land bought by the rural bank. The total value of the bonds in circulation must not surpass the sum of the mortgage credit granted, plus 80 per cent. of the value of the lands which the bank has bought and which are provisionally in its possession.

2) The lands bought by the bank are sold to agriculturists and exceptionally to the communes and the State. Before the sale those on the plain are divided into five-hectare and those in the mountains into three-hectare parcels. Exceptionally and when there are no purchasers for such lots

they may be divided into larger lots having a maximum area of fifty hectares. In accordance with the size of the purchasing family, and the circumstance that the agriculturist purchaser is or is not already in possession of a small landed property, the number of lots which he may buy is determined, the maximum being five.

The price of each lot is calculated on the basis that it may not exceed by more than 10 per cent. that paid by the bank.

Purchasers are bound to pay in cash a part of the price, namely :

10 to 15 per cent. thereof if they buy	1 parcel,
25 " " " " " "	2 or 3 parcels
30 " " " " " "	4 to 5 "

The remainder of the price is debited to the purchaser by the Rural Bank and secured by a mortgage on the parcels bought. These debts are for long terms, amortizable in 50 years and paying interest at the rate of 5 per cent., plus 2 per cent. for unpunctual debtors.

Purchasers of the parcels become owners thereof but do not enjoy them quite freely. Certain restrictions are imposed by the contract of purchase and sale, for example :

- a) the proprietor may not resell his property nor let it on lease ;
- b) division by inheritance may take place only if the area of the property surpass five hectares, and may in this case only affect the area in excess of five hectares ;
- c) the Rural Bank may inspect the farming of the parcels and does so by means of agricultural experts.

If the land intended to be sold in parcels is six kilometres (1) or more distant from a village, a new village is formed ; and then before the division takes place land is set aside as the site of private dwellings and also of the church, the school, the mayoralty, etc.

We have already said that the Rural Bank may sell land exceptionally to the communes and the State. To the communes the land needed to form communal pastures is sold ; to the State woodland.

In the interval between the purchase of lands and their sale to small farmers the Rural Banks may grant them on lease or cultivate them directly. Leases are given by preference to co-operative letting societies. The bank's direct cultivation and the leases it grants are considered provisional and have force only pending the division into parcels or the execution of works of improvement, the ultimate object of the bank's purchase of lands being always to resell them in parcels.

3) The Rural Bank also intervenes between large and small proprietors in negotiations for the purchase and sale of lands. It is even authorized by law to fix the price of land, either by whole properties or by hectare. This right is incontestably a serious restriction of individual liberty ; but it is considered necessary because the agriculturist is always very anxious to acquire land and therefore might easily consent to pay an exorbitant price for it.

(1) 1 Kilometre = 1093.633 yards.

4) The Rural Bank grants mortgage credit to agriculturists :

a) for the purchase of parcels from itself ; b) for the direct purchase of land from large proprietors ; c) for the conversion of debts incurred by such purchase of lands before the foundation of the bank. Credit for these purposes is secured by mortgages of the land in question. The mortgage is for a long term and the interest is at the rate of 3 per cent. The creditors of the debts mentioned under c) may be paid by the bank either in cash or in bonds, as they please.

As well as the long-term credit, granted as stated, the Rural Bank grants to agriculturists short-term credit, secured by bills or pledged agricultural products, agricultural machines, live stock and values.

5) The Rural Bank is authorized by the law to carry on every kind of banking business: the discount of commercial bills, the purchase and sale of titles, etc. This legal provision is justifiably criticized for it makes possible the diminution of the bank's capital to the detriment of the business cited under numbers 1) to 4). In practice however the Rural Bank does little of this banking business.

Net profits are divided as follows : 70 per cent. to shareholders and 30 per cent. to the reserve fund. The State takes, in its capacity of shareholder, only 6 per cent. on the capital it has paid up, all the balance being assigned to the improvements fund.

The conduct of the Rural Bank has provided the following figures :

From the time it was founded until 31 Decembre 1913 it bought the following properties :

Year	Hectares	Value	
1908	8,308	4,200,940	frances
1909	18,736	9,532,828	"
1910	30,597	16,392,155	"
1911	18,459	13,256,991	"
1912	12,893	12,342,146	"
1913	26,473	20,068,824	"
	<u>115,467</u>	<u>15,793,886</u>	"

Of these 115,467 hectares only 20,171 are wooded and therefore capable of being sold to the State.

The Rural Bank has sold a) to the communes 8,709 hectares for 28,909,600 francs ; and b) to agriculturists as follows :

Year	Number of parcels	Hectares	Francs
1909	124	519	43 ⁶ ,430
1910	458	2,183	1,778,288
1911	856	3,751	2,696,774
1912	1,324	5,971	4,695,285
1913	870	3,943	3,537,845
	<u>3,632</u>	<u>16,369</u>	<u>13,144,621</u>

These 3,632 parcels were sold to 3,318 agriculturists, which is to say that 89 per cent. bought only one parcel each.

In addition to its sales the bank has let on lease: 20,856 hectares to fourteen collective farms comprising 3,677 members; and 17,777 hectares to 5,099 agriculturists.

The remainder — namely 32,187 hectares of arable land and 20,171 hectares of woodland — is directly cultivated and its profits realized by the bank.

The Rural Bank has granted 4,128,912 francs on mortgages to agriculturists who have bought their lands directly from large proprietors. At the end of 1913 the short-term credit granted amounted to 5,602,048.65 francs. The value of the credit granted to communes was 28,647,200 francs. Net profits in 1913 were 990,450.69 francs. This sum was distributed as follows:

To the reserve fund	30 per cent.	297,135.00 francs	
To the shareholders	30 » »	646,657.80 »	
To the improvement funds . .	30 » »	46,657.89 »	

According to the balance-sheet of 1913 the reserve fund was 1,179,754 francs.

§ 5. AGRICULTURAL AND VITICULTURAL CREDIT (CREDITUL AGRICOL SI VITICOL.).

On 30 May 1881 the law as to departmental agricultural banks was passed in Rumania. The first of these banks was founded in 1882 and gradually there came to be one of them in each department.

Legally they are stock-companies. In the intention of the law all shares were to be subscribed by the agriculturists of the departments, but this was realized only in the agricultural bank of Jassy. The subscription of shares in all other departments was very small and the State was obliged to provide the necessary working capital in the form of loans to the banks. In 1892, the year in which the working of the banks was arrested, the loans granted by the State amounted to seven million francs.

The activity of each bank was limited to the department in which it was situated. The banks were completely independent of each other. They were authorized to grant to agriculturists only short-term credit, for terms of nine months, the security being: a) bills; b) pledged agricultural products or machines and values. The rate of interest was at first 7 per cent. but was raised to 11 per cent., and if dues to be paid on documentary evidence supplied or drawn up be included the actual rate was often from 15 to 20 per cent.

The law prescribed no maximum for loans to agriculturists. Thus at the beginning of each year all or almost all the available capital was engrossed by a restricted number of medium-sized proprietors, and small proprietors derived no benefit from the banks. Their unsatisfactory results decided

the government to decree their suspension by the law of 2 July 1892, and to supersede them by the Agricultural Credit which began business on 1 January 1913.

Instead of the decentralization which had hitherto prevailed a centralization of business was brought about by the law of 1892. An agricultural bank was formed which was situated at Bucharest and had branches in all the departmental centres in which there had previously been an agricultural departmental bank.

This institution of agricultural credit is a State institution depending on the Minister of Finances (art. 9). It has three sections :

- a) Section I. is concerned with mortgage credit.
- b) Section II. is concerned with long-term debts of a particular kind, debts namely incurred for initial installation under the law of 1889.
- c) Section III., formed in 1906, grants long-term credit for the plantation of vineyards.

The capital in shares paid by the State is 25,000,000 francs, namely : 20,000,000 francs to the first, 3,000,000 francs to the second and 2,000,000 francs to the third section. The capital was paid as follows :

- 1) The first section received the sums granted by the State in the form of a loan to the departmental banks, namely 7,000,000 francs, and it received 13,000,000 francs in State bonds (art. 12).
- 2) The second section was granted a current account at the National Bank and the State issued bonds up to the value of the credit granted.
- 3) The third section received for four years 500,000 francs a year — namely a total sum of 2,000,000 francs — deducted from the net profits of the first section.

Besides the capital in shares belonging to the State the Agricultural Credit uses capital emanating from other sources. The first section is authorized : a) to accept deposits ; b) to borrow from the National Bank proportionately to the credit granted to its clients. The third section is also authorized to issue bonds secured by the credit granted. These bonds of 100-200 francs and 500 francs are at 4 ½ per cent, redeemable in twenty years, and the total value of those issued must not surpass 20,000,000 francs.

Section I. grants short-term credit, for from three to nine months, secured by pledged agricultural products and machines and live stock. The rate of interest is 11 per cent. for costs of administration, plus 2 per cent. for unpunctual debtors. The total credit granted to a borrower must not be more than 1000 francs. Section I. is, as has already been said, authorized to accept deposits and also to receive payments on behalf of the National and the Agricultural Bank.

From 1903 to 1906 Section I. had the responsibility of acting as a central bank for the agricultural co-operative credit societies ; and as such was authorized to discount and rediscount the societies' bills and make loans to them on current account. In 1906 a truly independent central bank for the co-operative societies was formed, and thus the Agricultural Credit no longer undertook business of this description.

Of the net profits 90 per cent. belong to the State and 10 per cent. are deducted to be paid into the reserve fund. The deductions for the reserve fund will cease as soon as its amount has reached 5,000,000 francs.

Section II. grants both long and short-term credit for from three to ten years. This credit is granted for initial installation. According to the law of 1889 (art. 3) the Ministry of the Public Domains is authorized to sell the State's landed property in 5-hectare lots. The purchasers of these lots are obliged to establish themselves on them within three years. Section II. facilitates settlement of this description by granting to the settlers loans enabling them to build dwellings and buy live stock and agricultural implements. No more than 600 francs may thus be lent to a single borrower. The rate of interest is 5 per cent.

Section III. was formed on 16 January 1906. On 27 May of that year it was separated from the Agricultural Credit and remained separate until 30 March 1908 when it once more became Section III. thereof.

It makes long-term loans, for twenty years, for the plantation of vines. All its loans are guaranteed by the State on the security of a mortgage on the planted vines. The sum of the loan may not exceed two thirds of the value of the vineyard. The credit granted is supplied to the borrower on account as gradually the planting, which is inspected by an employee of the lending institution, is effected.

The rate of interest is 5 $\frac{1}{2}$ per cent., plus 1 per cent. for unpunctual borrowers (art. 7). The loans are amortizable in fifteen years but the first repayment does not take place until after five years, at which date the vines are beginning to be productive.

From 1882 to 1892 the departmental banks granted credit for 188,194,892 francs. When they ceased to work in 1892 the total credit they had granted was for 19,988,041.35 francs, and this credit was transferred to the Agricultural Credit.

From 1903 to 31 December 1911 Section I. of the Agricultural Credit granted credit for 504,594,240 francs. At the end of 1911 the amount of the credit was 16,984,046.05 francs.

At the same time the following deposits were received :

From 1882 to 1892	5,133,534	francs
" 1893 " 1911	33,111,507.26	"

On 1 January 1912 deposits amounted to 3,374,123.84 francs.

On 31 December 1911 the reserve fund amounted to 2,608,693.12 francs.

From 1893 to 31 December 1911 the net profits paid to the State amounted to 27,478,238.08 francs, that is a sum 4,478,238.08 francs in excess of the amount of the capital advanced by the State.

Section II. in only four years (1894, 1895, 1897 and 1898) granted credit to the amount of 862,060 francs.

Section III. began business in 1907 and granted credit for the following sums : 943,100 francs in 1907 ; 1,297,600 francs in 1908 ; 1,045,600 francs in 1909 ; 846,800 francs in 1910 ; 3,271,000 francs from 1911 to 1914 — that is a total sum of 7,404,100 francs from 1907 to 1914.

One fifth of this credit was granted in the district of Prahova and large sums in the districts of Buzan, Doej and Valcea. The other districts participated only to a small extent.

Bonds in circulation amounted on 31 March 1915 to 5,404,100 francs.

The repayment of loans begins, as we have said, only after five years; that is to say payments were made in 1912 for loans of 1907, in 1913 for loans of 1907 and 1908, and in 1914 for loans of 1907, 1908 and 1909. This delay of five years before first repayments are made brings about that books are closed showing a loss which is only apparent. For the year 1915 it was 767,346.49 francs.

§ 6. THE RURAL CO-OPERATIVE CREDIT SOCIETIES.

The first rural co-operative credit society was formed at Urziceni in the department of Jaloniza in January 1891. In subsequent years until 1898 the co-operative movement did not make much progress. Agriculturists had no confidence in the societies. The large farmers and the usurers were opposed to them seeing in them formidable competitors. The State was completely indifferent. For all these reasons the co-operative movement was slow in these first years. Only twenty-five rural co-operative credit societies were founded from 1891 to 1898.

In 1898 Spira Haret was nominated Minister of Religion and he devoted himself to the development of the co-operative movement. He charged some masters of primary schools to teach the peasants the usefulness of co-operative societies and the need there was for them. From this year the co-operative movement developed, and when the law on co-operative societies was passed in 1903 there were already more than 700 of them. All were of the Schultze-Delitsch type — that is to say they were limited liability societies.

The law of 1903 caused the co-operative movement to enter into a new phase. The proposed law as presented to parliament contained the following principles: 1) the limited liability of members; 2) the State's minute inspection of the management of the societies. These principles were however attenuated by parliament, and the law which has been in force since 28 March 1903 contains the following:

1) All co-operative societies, whether credit or other, are legal corporations. They may be formed on the basis of either unlimited or limited liability. Those of the first form enjoy however a preference under the law which declares them exempt from taxes. Co-operative societies founded on the principle of limited liability are obliged to subscribe a capital in shares of at least a thousand francs; those founded on the principle of unlimited liability can be formed without any capital in shares.

2) All the co-operative societies are subject to the inspection of the Agricultural Credit, that is to say of the Central Bank which was a section of the Agricultural Credit and is obliged to hold an inspection at least once a year.

3) A Central Bank was formed for the co-operative societies, as a section of the Agricultural Credit, and gives credit to the co-operative credit societies. Since 1906 the Central Bank has been separated from the Agricultural Credit, and works as an autonomous institution. The law lays down conditions which the co-operative societies must fulfil in order to obtain credit from the Central Bank. These are as follows: 1) a society must accept as members only the peasants of the village in which it is situated; 2) the rate of interest it receives will be fixed by the central bank; 3) 10 per cent. of the net profits will be paid into a reserve fund. All these conditions show a desire to favour co-operative societies having unlimited liability.

At first the Central Bank was, as we have said, attached to the Agricultural Credit: 1) because the latter had a very large capital at its disposal; 2) because it had experience in the credit business transacted with peasants.

Later, in 1906, when the Central Bank was separated from the Agricultural Credit, the special law prescribed that its working capital should be supplied by the Agricultural Credit.

Of recent years there has been a movement towards forming district federations. Four of these have been formed: one at Dumbraveni which unites ten co-operative societies and has a capital in shares of 27,000 francs, one at Fg. Bujor which comprises eighteen co-operative societies and has a capital in shares of 45,000 francs; one at Topoloveni which has eleven co-operative societies and a capital in shares of 23,200 francs; and one at Fg. Giacenea which has ten societies and a capital of 50,000 francs.

The co-operative credit societies grant credit to their members, and also to outsiders who receive about one third of their loans. The loans are for long and for short terms: namely for from nine months to three years for the purchase of provisions, forage and seeds; and for from three to ten years for that of live stock and agricultural implements and for the renting and purchase of land.

The business of the co-operative societies furnishes the following figures, In 1902 there were 2,862 rural co-operative credit societies, having 563,270 members; 99,067.74 francs of paid-up capital; 7,151,799 francs in reserve funds; 16,503,381 francs in deposits: and debts to the Central Bank of 11,447,529 francs. They had granted 138,652,562 francs in credit. This credit was distributed as follows: 1) For provisions and forage 17.37 per cent; for live stock and agricultural implements 32.34 per cent.; for the purchase and renting of land 20.78 per cent.; various 16.74 per cent. 2) Personal credit amounted to 37.75 per cent. and credit on chattels to 62.25 per cent (27.33 per cent. on bills and 34.92 per cent. on pledges). 3) The following shows the amounts of the credit granted; 6.46 per cent. of the grants were of less than 50 francs; 18.62 per cent. were from 50 to 100 francs; 68.40 per cent. from 100. to 1000 francs; 6.52 per cent. more than 1000 francs.

Part IV: Agricultural Economy in General

UNITED STATES.

LAND TENURE AND THE ORGANIZATION OF AGRICULTURE ON INDIAN RESERVATIONS IN THE UNITED STATES

prepared under the direction of CATO SELLS,
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§ I. LAND TENURE.

On June 30, 1916, there were 312,654 Indians in the United States under Federal supervision, occupying 174 reservations. Some of these reservations were granted by Act of Congress, pursuant to treaties or agreements with the various tribes; others were established by Executive Order of the President of the United States; and several were acquired by still different methods, which will be explained hereafter. In the Proclamation of George III, dated October 7, 1763, four principles of government in Indian affairs, in force to the present day, were laid down:

(1) *The recognition of the Indian's right of occupancy*: *** "And whereas it is just and reasonable, and essential to our interest, and the security of our Colonies, that the several nations or tribes of Indians, with whom we are connected, and who live under our protection, should not be molested or disturbed in the possession of such parts of our dominions and territories, as, not having been ceded to, or purchased by us, are reserved to them, or any of them, as their hunting grounds.

(2) *The right to expel white intruders on Indian lands*: *** "All the lands and territories not included within the limits of our said three new Governments or within the limits of the territory granted to the Hudson's Bay Company; as also all the lands and territories lying to the westward of the sources of the rivers which fall into the sea from the West and Northwest as aforesaid; and we do hereby strictly forbid *** all *** subjects from making *** settlements *** or taking possession of any of the lands above reserved ***. And we do further strictly enjoin and require all persons whatever, who have wilfully or inadvertently seated themselves upon any lands within the counties above described, or upon any other lands, which have not been ceded to, or purchased

by us, are still reserved to the said Indians as aforesaid, forthwith to remove themselves from such settlements.

(3) *The right to purchase Indian lands is vested solely in the government* : * * * "We do, with the advice of our Privy Council, strictly enjoin and require that no private person do presume to make any purchase from the said Indians of any lands reserved to the said Indians * * * if at any time any of the said Indians should be inclined to dispose of the said lands, the same shall be purchased only for us, in our name.

(4) *The right to regulate trade and license traders* : * * * "Every person who may incline to trade with the said Indians, do take out a license for carrying on such trade, from the Governor or Commander-in-chief of any of our colonies respectively * * * and also give security to observe such regulations as we shall at any time think fit * * * to direct and appoint for the benefit of the said trade".

The civilized nations of Europe which had acquired territory on this continent, asserted in themselves and recognized in others the exclusive right of the discoverer to appropriate the lands occupied by the Indians. By the Treaty of 1783, the United States acquired all the rights to the soil which had previously been in Great Britain; by the Treaty of 1803, with France (the Louisiana purchase) it agreed to execute and respect all treaties made or agreed upon between Spain and the several tribes of Indians residing within the territory ceded. The Supreme Court of the United States, in an early decision, held that the Government had a clear title to all the lands within the areas referred to above; subject only to the Indian right of occupancy; that the Indians had the unquestioned right to the lands they occupied until that right was voluntarily transferred by them to the Government; that they occupied lands to which the United States held title, independent of their will which must take effect in respect to possession when their right of occupancy ceased; and that the claim of the Government extends to the complete ultimate title, charged with the Indian right of occupancy and possession, and to the exclusive power to acquire that right.

During the colonial period, charters and grants were made by the Government, of land for the occupancy of Indians, known as their hunting grounds. Their rights to its exclusive enjoyment in their own way and for their own purposes were always recognized by the colonists until abandoned or ceded by them, their right of occupancy being respected by the political power of the colony and upheld by the courts until extinguished.

Article 3, of the Act of July 13, 1787, entitled "An ordinance for the government of the territory of the United States northwest of the river Ohio", provides, in part, as follows:

"The utmost good faith shall always be observed toward the Indians; their land and property shall never be taken from them without their consent; and in their property, rights and liberty they shall never be invaded or disturbed, unless in just and lawful wars authorized by Congress; but laws founded in justice and humanity shall from time to time

be made for preventing wrongs being done to them and for preserving peace and friendship with them”.

Originally, the relations of the Government with the Indians were determined by treaties made with their tribal authorities. Although the Government claimed complete sovereignty over the territory and inhabitants within its limits, and while treaties, in the true legal sense of the term, can only be entered into between independent sovereignties, yet the colonies, and also the mother country, had treated with the Indians as “nations”, their chiefs, or “sachems”, often being designated kings. This notion was retained by the founders of the Government and thus became its established policy.

The early treaties generally defined the boundary line between the Indian country and that of the United States, which at first extended from the lake on the north to Florida on the south. The United States claimed no control over its citizens who ventured to pass this line. Gradually trading and military posts were established and the land about them secured from the Indians; then roadways between these stations were obtained; until finally the Indians were living upon defined tracts. The continued pressure of immigration and the consequent demand for land resulted in the Indians exchanging their more eastern tracts for reservations, set apart for them by the Government in the western part of the country. The establishment of such reservations was the natural result of the cession of their lands by the Indians to the United States, and was necessary in order to provide them with homes and with land for cultivation; to avoid disputes in regard to boundaries; and to bring the Indians more easily under the control of the Government by confining them within given areas. This policy involved a very important and radical change in the customs and habits of the Indians and was the first step by them toward agricultural pursuits as their principal means of livelihood, the organization and development of which form the subject of the second part of this article.

The making of treaties with the Indians was terminated by the Act of March 3, 1871, as follows:

“Hereafter no Indian tribe within the territory of the States shall be accepted or recognized as an independent nation, tribe, or power, with whom the United States may contract by treaty.”

The effect of this Act was to bring under the immediate control of Congress the relations of the Government with the Indians, and to reduce to simple agreements, subject to ratification by Congress, what had previously been accomplished by formal and solemn treaties, as with a foreign power. However, this procedure accomplishes practically the same results in a different manner more consonant with the real sovereignty of the United States and the progress of civilization.

After the passage of this law, reservations were created either by Act of Congress (generally in ratification of an agreement with the Indians) or by Executive Order of the President of the United States, either with or without the specific authority of Congress, such reservations being

sometimes authorized by Act of Congress and their limits subsequently defined by Executive Order; others were first established by Executive Order and later confirmed by Act of Congress. This, however, is not necessary, as the President may, at his discretion, establish Indian reservations, on public lands not otherwise occupied, without the specific prior authority of Congress, or its subsequent ratification.

The right of the Indians to their reservation is ordinarily subject to certain restrictions, as set forth by decision of the United States Supreme Court, a portion of which is quoted below:

"The right of the Indians to the reservations ordinarily occupied by them is that of occupancy alone. The fee is in the United States, subject only to this right of occupancy. The Indians have no power of alienation except to the United States. But while the fee to the reservations is in the United States, the right of the Indians to their use and occupancy is as sacred as that of the Government to the fee. They have the right to apply to their own use and benefit the entire products of the reservation, whether the result of their own labour or of natural growth, so they do not commit waste. If the lands in a state of nature are not in a condition for profitable use they may be made so; if desired for the purpose of agriculture they may be cleared of their timber to such an extent as may be reasonable under the circumstances, and the surplus timber taken off by the Indians in such clearing, and not required for use on the premises, may be sold by them. The Indians may cut growing timber for fuel and for necessary use upon the reservation; they may open mines and quarry stone for the sole purpose of obtaining fuel and building material; they may cut hay for the use of their live stock, and may sell any surplus not needed for that purpose. In short, what a tenant for life may do upon the lands of a remainder-man the Indians may do upon their reservation, but no more."

On the other hand, it is obligatory upon the Government to prevent any intrusion, trespass, or settlement on the lands of any Indian tribe, unless such tribe has first given its consent thereto, either by treaty or agreement. In a few cases reservations have been patented to certain tribes by the Government, such as the Cherokees, Choctaws, and Creeks. The construction given to such patents by the courts is that they are not titles in fee simple, for they convey no power of alienation except to the United States; neither are they the same as the ordinary title of occupancy; they are rather a "base, qualified, or determinable fee, with a possibility of reversion to the United States only", and the Indians may cut, sell, or dispose of the timber, and permit mining and grazing within the limits of their respective tracts by their own citizens.

In several cases the Indians have purchased the lands comprising their reservations, the title thereto being held in trust for their benefit by the Government tribal council, or other parties.

At first the land was held in common for the benefit of all the Indians, each head of a family being allowed to cultivate and use a tract assigned to or selected by him, a certificate of occupancy sometimes being issued

as evidence of his right thereto. This policy was continued until the passage by Congress of the General Allotment Act on February 8, 1887, several sections of which are quoted below :

(1) (As amended by the Acts of February 28, 1891 and June 25, 1910). " That in all cases where any tribe or band of Indians has been or shall hereafter be located upon any reservation created for their use by treaty stipulation, Act of Congress, or executive order, the President shall be authorized to cause the same or any part thereof to be surveyed or resurveyed whenever in his opinion such reservation or any part thereof may be advantageously utilized for agricultural or grazing purposes by such Indians, and to cause allotment to each Indian located thereon to be made in such areas as in his opinion may be for their best interest, not to exceed eighty acres of agricultural or one hundred and sixty acres of grazing land to any one Indian. And whenever it shall appear to the President that lands on any Indian reservation, subject to allotment by authority of law, have been or may be brought within any irrigation project, he may cause allotments of such irrigable lands to be made to the Indians entitled thereto in such areas as may be for their best interest, not to exceed, however, forty acres to any one Indian, and such irrigable land shall be held to be equal in quantity to twice the number of acres of non-irrigated agricultural land and four times the number of acres of non-irrigable grazing land : *Provided*, That the remaining area to which any Indian may be entitled under existing law, after he shall have received his proportion of irrigable land on the basis of equalization herein established, may be allotted to him from non-irrigable agricultural or grazing lands : *Provided further*, That where a treaty or Act of Congress setting apart such reservation provides for allotments in severalty in quantity greater or less than that herein authorized, the President shall cause allotments on such reservations to be made in quantity as specified in such treaty or Act, subject, however, to the basis of equalization between irrigable and non-irrigable lands established herein, but in such cases allotments may be made in quantity as specified in this Act, with the consent of the Indians expressed in such manner as the President in his discretion may require.

(5) " That upon the approval of the allotments provided for in this Act by the Secretary of the Interior, he shall cause patents to issue therefor in the name of the allottees, which patents shall be of the legal effect, and declare that the United States does and will hold the land thus allotted, for the period of twenty-five years, in trust for the sole use and benefit of the Indian to whom such allotment shall have been made, or, in the case of his decease, of his heirs according to the laws of the State or Territory where such land is located, and that at the expiration of said period the United States will convey the same by patent to said Indian, or his heirs as aforesaid, in fee, discharged of said trust and free of all charge or incumbrance whatsoever ; *Provided*, That the President of the United States may in any case in his discretion extend the period. And if any conveyance shall be made of the lands set apart and allotted as herein

provided, or any contract made touching the same, before the expiration of the time above mentioned, such conveyance or contract shall be absolutely null and void: *Provided*, That the law of descent and partition in force in the State or Territory where such lands are situate shall apply thereto after patents therefor have been executed and delivered, except as herein otherwise provided; and the laws of the State of Kansas regulating the descent and partition of real estate shall, so far as practicable, apply to all lands in the Indian Territory which may be allotted in severalty under the provisions of this Act: *And provided further*, that at any time after lands have been allotted to all the Indians of any tribe as herein provided, or sooner if in the opinion of the President it shall be for the best interests of said tribe, it shall be lawful for the Secretary of the Interior to negotiate with such Indian tribe for the purchase and release by said tribe, in conformity with the treaty or statute under which such reservation is held, of such portions of its reservation not allotted as such tribe shall, from time to time, consent to sell, on such terms and conditions as shall be considered just and equitable between the United States and said tribe of Indians, which purchase shall not be complete until ratified by Congress, and the form and manner of executing such release shall also be prescribed by Congress.

(6) (' As amended by the Act of May 8, 1906). " That at the expiration of the trust period and when the lands have been conveyed to the Indians by patent in fee, as provided in section five of this Act, then each and every allottee shall have the benefit of and be subject to the laws, both civil and criminal, of the State or Territory in which they may reside; and no Territory shall pass or enforce any law denying any such Indian within its jurisdiction the equal protection of the law. And every Indian born within the territorial limits of the United States to whom allotments shall have been made and who has received a patent in fee simple under the provisions of this Act, or under any law or treaty, and every Indian born within the territorial limits of the United States who has voluntarily taken up within said limits his residence, separate and apart from any tribe of Indians therein, and has adopted the habits of civilized life, is hereby declared to be a citizen of the United States, and is entitled to all the rights, privileges, and immunities of such citizens, whether said Indian has been or not, by birth or otherwise, a member of any tribe of Indians within the territorial limits of the United States without in any manner impairing or otherwise affecting the right of any such Indian to tribal or other property: *Provided*, That the Secretary of the Interior may, in his discretion, and he is hereby authorized, whenever he shall be satisfied that any Indian allottee is competent and capable of managing his or her affairs, at any time to cause to be issued to such allottee a patent in fee simple, and thereafter all restrictions as to sale, incumbrance, or taxation of said land shall be removed and said land shall not be liable to the satisfaction of any debt contracted prior to the issuing of such patent: *Provided further*, That until the issuance of fee-simple patents all allottees to whom trust patents shall hereafter be issued shall be

subject to the exclusive jurisdiction of the United States: *And provided further*, That the provisions of this Act shall not extend to any Indians in the Indian Territory.

"That hereafter when an allotment of land is made to any Indian, and any such Indian dies before the expiration of the trust period, such allotment shall be cancelled and the land shall revert to the United States, and the Secretary of the Interior shall ascertain the legal heirs of such Indian, and shall cause to be issued to said heirs and in their names, a patent in fee simple for said land, or he may cause the land to be sold as provided by law and issue a patent therefor to the purchaser or purchasers, and pay the net proceeds to the heirs, or the legal representatives, of such deceased Indian. The action of the Secretary of the Interior in determining the legal heirs of any deceased Indian, as provided herein, shall in all respects be conclusive and final."

The terms of such patents transmitting title to the Indian allottee, first in trust, and then in fee simple, as provided by the Act, are as follows.

Trust.

"Whereas, a schedule of allotments approved by the Secretary of the Interior has been deposited in the General Land Office, whereby it appears that John Smith, a Flathead Indian, has been allotted the following described land: Northwest quarter of the southeast quarter of Section twenty-seven, township six, north, range thirteen west, Montana principal meridian.

"Now Know Ye, that the United States of America, in Consideration of the Premises, has allotted, and by these presents does allot, unto the said Indian the land above described, and hereby declares that it does and will hold the land thus allotted (subject to all statutory provisions and restrictions) for the period of twenty-five years, in trust for the sole use and benefit of the said Indian; and at the expiration of said period, the United States will convey the same by patent to said Indian in fee, discharged of said trust and free from all charge and incumbrance whatsoever; but in the event said Indian dies before the expiration of said trust period the Secretary of the Interior shall ascertain the legal heirs of said Indian and either issue to them in their names a patent in fee for said land or cause said land to be sold for the benefit of said heirs as provided by law; and there is reserved from the lands hereby allotted a right of way thereon for ditches or canals constructed by the authority of the United States.

Fee.

"Whereas, an order of the Secretary of the Interior has been deposited in the General Land Office directing that a fee simple patent issue to the claimant, John Smith, a Flathead Indian, for the Northwest quarter of the southeast quarter of section twenty-seven, township six, north, range thirteen west, Montana principal meridian.

"Now Know Ye, that the United States of America, in consideration of the premises, has given and granted, and by these presents does give and grant unto the said claimant and to the heirs of the said claimant, the land above described, to have and to hold the same together with all the rights, privileges, immunities, and appurtenances of whatsoever nature thereunto belonging, unto the said claimant and to the heirs and assignees of the said claimant, forever; and there is reserved from the lands hereby granted a right of way thereon for ditches or canals constructed by the authority of the United States".

Sections 4 and 5 of the Act of June 25, 1910, provide as follows:

"(4) That any Indian allotment of any Indian held under a trust patent may be leased by the allottee for a period not to exceed five years, subject to and in conformity with such rules and regulations as the Secretary of the Interior may prescribe, and the proceeds of any such lease shall be paid to the allottee or his heirs, or expended for his or their benefit, in the discretion of the Secretary of the Interior.

"(5) That it shall be unlawful for any person to induce any Indian to execute any contract, deed, mortgage, or other instrument purporting to convey any land or any interest therein held by the United States in trust for such Indian, or to offer any such contract, deed, mortgage or other instrument for record in the office of any recorder of deeds. Any person violating this provision shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine not exceeding five hundred dollars for the first offence, and if convicted for a second offence may be punished by a fine not exceeding five hundred dollars or imprisonment, not exceeding one year, or by both such fine and imprisonment, in the discretion of the court: *Provided*, That this section shall not apply to any lease or other contract authorized by laws to be made".

In brief, this Act provides for the allotment of land in severalty to each individual Indian, in the quantity specified, for the different classes; for the issuance to said Indian of a trust patent, as evidence thereof, to run twenty-five years; that at the expiration of this period, unless extended (or sooner, within the discretion of the Secretary of the Interior), a fee patent shall be issued to the allottee, removing said land from Government control; that any conveyance or hypothecation thereof during the trust period is void; and that, upon being given the fee patent, the Indian becomes a citizen of the State in which he lives, and subject to all the laws thereof (previously thereto having been under the exclusive jurisdiction of the United States).

Under Sections 4 and 5 of the Act of June 25, 1910, above quoted, an Indian holding a trust patent may lease his land, with the approval of the Secretary of the Interior, the proceeds thereof being paid to said Indian if competent or expended for his benefit if incompetent. It is also made unlawful to induce any Indian holding a trust patent to execute any contract, deed or mortgage with respect thereto. An Indian holding a trust patent may sell his land or devise it by will, with the approval of the Secretary of the Interior.

According to the latest figures there are 312,654 Indians in the United States under Federal supervision, who inhabit 174 reservations comprising 70,891,091 acres of land. Under the general allotment Act, as amended, 211,172 allotments of land in severalty have been made to individual Indians, aggregating 34,477,970 acres, and trust patents issued therefor as above set forth. Of this number, 72,508 Indians now hold trust patents and 112,357 hold fee patents. Since 1902, sales have been effected of 11,752 individual tracts of allotted Indian land, comprising 1,405,463 acres, for a total of \$22,015,907.

§ 2. THE ORGANIZATION OF AGRICULTURE.

Almost without exception the early explorers found the Indians in what is now the United States, from the border of the Western plains to the Atlantic Ocean, dwelling in settled villages and cultivating the soil. De Soto found all the tribes visited by him from the Florida peninsula to the Western part of Arkansas cultivating maize and other food plants. The early voyagers found the same thing true along the Atlantic Coast from Florida to Massachusetts. Captain John Smith and his Jamestown colony, indeed all the early colonies, depended at first very largely for food supplies upon the products of Indian cultivation. Jacques Cartier, the first European to ascend the St. Lawrence River, found the Indians cultivating the soil. "They have", he says, good and large fields of corn." Champlain and other early French explorers testify to the great reliance of the Iroquois on the cultivation of the soil for food. La Salle observed the Indians cultivating and to a large extent subsisting on maize. Besides maize, beans, squashes, pumpkins, sweet potatoes, and tobacco were cultivated to a considerable extent, especially in what are now the Southern States. Marquette, speaking of the Illinois Indians, says that, in addition to maize, "they also sow beans and melons, which are excellent, especially those with the red seed".

In regard to the tribes further West an early writer states, "From the earliest information we have of the Pueblo Indians they are known to have been tillers of the soil, and though the implements used and their methods of cultivation were both simple and primitive, cotton, corn, wheat (after its introduction), beans and many varieties of fruit were grown in abundance."

The Indians of Arizona and New Mexico had learnt the art of irrigating their fields before the appearance of the white man on the continent. This is shown not only by the statements of the early explorers but also by the still existing remains of their ditches, estimated to have been sufficient for the irrigation of at least 250,000 acres.

There is definite evidence that the Indians used fertilizers although it has been stated that they did not. The Plymouth colonists were told by Indians to add fish to the old grounds. It is also stated that the Iroquois manured their land. Lescarbot says that the Virginia Indians and others

"enrich their fields with shells and fish". The implements they used in cultivating the ground are described by him as "wooden howes and spades made of hard wood". "The Florida Indians dig their ground with an implement of wood fashioned like a broad mattox; they use howes made of the shoulder blades of animals fixed on staves; and a piece of wood three inches broad, bent at one end and fastened to a long handle, suffices them to free the land from weeds and turn it up lightly."

Among the Indians the farm and field work was mostly done by the women, the men being regarded as hunters and warriors. Hariot says (1810):

"The women, with short pickers or parers (because they use them sitting) of a foot long and about five inches in breadth, do only break the upper part of the ground to raise up the weeds, grass and old stubs or corn stalks with their roots."

It was a general custom to burn over the ground before planting in order to free it from weeds and rubbish. In the forest region patches were cleared by girdling the trees, thus causing them to die and afterwards burning them down. While the women were thus occupied, the men engaged in fishing, hunting, or trapping, when not busy on the war path.

The first treaty between the United States and any Indian tribe was made with the Delawares on September 17, 1778, and was concerned primarily with the establishment and preservation of peace between the whites and Indians and the recognition by the latter of the authority of the United States. No grants of money or food supplies to Indians were made therein, but this practice gradually developed in subsequent treaties, many of which also included an agreement on the part of the Indians to remain within a certain restricted locality, this being the germ of the present reservation system. Apparently the first treaty in which the United States specifically agreed to furnish farmers to instruct the Indians in agricultural pursuits was that with the Menominee Indians on February 8, 1831, as follows:

"The above reservation being made to the Menominee Indians, for the purpose of weaning them from their wandering habits by attaching them to comfortable homes, the President of the United States, as a mark of affection for his children of the Menominee tribe, will cause to be employed five farmers of established character for capacity, industry and moral habits, for ten successive years, whose duty it shall be to instruct the Menominee Indians in the cultivation of their farms and to instruct their children in the business and occupation of farming."

The first general appropriation for Indian education was made on March, 3, 1819, when an Act was passed appropriating \$10,000 as follows:

"For the purpose of providing against the further decline and final extinction of the Indian tribes adjoining the frontier settlements of the United States, and for introducing among them the habits and arts of civilization, the President of the United States shall be, and he is hereby, authorized, in every case where he shall judge improvement in the habits

and condition of such Indians practicable, and that the means of instruction can be introduced with their own consent, to employ capable persons of good moral character to instruct them in the mode of agriculture suited to their situation; and for teaching their children in reading, writing and arithmetic, and performing such other duties as may be enjoined, according to such instructions and rules as the President may give and prescribe for the regulation of their conduct in the discharge of their duties”.

At the present time the Office of Indian Affairs is a bureau of the Department of the Interior, and is presided over by an official known as the Commissioner of Indian Affairs. Each reservation is directly in charge of a bonded superintendent, who is responsible to the Commissioner for the proper and efficient conduct of the affairs of the Indians on his particular reservation, including their agricultural operations. Most of the reservations are divided into districts, each in charge of a farmer who resides therein and is furnished with transportation equipment in order that he may travel about and instruct the Indians in their agricultural work. This farmer must be personally acquainted with every Indian family in his district and thoroughly familiar with their industrial condition, needs and resources, so as to assist them to get the best results from their labours. The farmers are appointed from a register of eligibles who have passed the required Civil Service examination, in order to test their fitness for the particular work devolving upon them. They make frequent verbal and written reports to the Superintendent as to agricultural conditions in their respective districts, and the Superintendents submit regular annual reports to the Commissioner, besides such special reports from time to time as conditions may warrant.

That portion of the United States in which Indian reservations are located is divided into ten supervisory districts, each of which is assigned to an inspecting official, who makes periodical trips to the various reservations in his territory, for the purpose of determining and reporting upon the agricultural progress of the Indians and all other matters relating to the administration of their affairs. By means of such reports, the Commissioner is kept informed as to actual conditions, the degree of efficiency of the various Superintendents, farmers, and other employees, as a basis for such administrative action as he may deem necessary.

The present appropriation for agricultural work among the Indians reads as follows:

“For the employment of practical farmers and stockmen, in addition to the agency and school farmers now employed; for necessary travelling expenses of such farmers and stockmen, and for furnishing necessary equipment and supplies for them; and for superintending and directing farming and stock-raising among Indians.”

Two hundred and fifty eight farmers are now employed and paid from this appropriation or other available funds.

The statement given below shows the number of Indians farming, the total cultivated acreage, the average acreage per Indian, and the value

of crops produced by the Indians each year since 1911, when the present statistical system was inaugurated :

Year	No. Indians Farming	Acreage Cultivated	Average per Indian	Value of Crops Raised
1911	24,489	383,025	15.6	\$ 1,951,672
1912	28,051	558,503	19.9	3,250,288
1913	29,216	595,331	20.4	4,021,392
1914	29,811	594,268	19.9	4,007,335
1915	31,956	664,539	20.8	4,790,968
1916	35,823	678,527	19.0	5,293,719

While it is preferred that the Indians purchase their own farming implements, seed, etc., yet where they lack the necessary individual funds for this purpose, the Government furnishes them with such supplies, in return for labour by the individual for the benefit of the tribe (on the reservation roads, bridges, etc.) to be paid for in cash in easy instalments on what is known as the reimbursable plan, explained below ; or, in the case of seed, to be returned in kind at harvest. Ordinarily the Government purchases articles of this kind in large quantities so as to get the benefit of lower prices, and then distributes them to the individual Indians on the conditions above set forth. Every Indian receiving property on the reimbursable plan must sign an agreement substantially as follows :

"Agreement entered into this tenth day of July, 1915, between John Smith of the Apache tribe of Indians, and F. W. Jones, superintendent and special disbursing officer for and on behalf of the United States of America, covering property, stock, or equipment purchased under the provisions of the Act of Congress dated May 18, 1914 from 'Industry Among Indians, 1915'.

"It is hereby agreed that John Smith will pay to F. W. Jones, or his successors in office, the sum of One Hundred Dollars (\$100), in payments to be made as hereinafter mentioned, which payments are to be in full consideration for the property, stock or equipment, listed below, and receipt for which is hereby acknowledged by John Smith.

Item	Amount
1 farm wagon.	\$ 100.00
Total . . .	\$ 100.00

" Payments to be made by said John Smith to the said F. W. Jones, or his successors in office, as follows :

Date due		Amount
Jan. 10, 1916	\$	25.00
July 10, 1916		25.00
Jan. 10, 1917		25.00
July 10, 1917		25.00
Total . . .		\$ 100.00

" It is stipulated and agreed that the title to the above-described articles shall remain in the United States of America until payment in full has been made, and that in default of payment, or in case of failure to properly care for or have cared for,* or use the same, the said superintendent, or his successors in office, shall take possession of said property as set forth in regulations approved by the Secretary of the Interior October 6, 1914.

" It is further stipulated and agreed that upon payment in full by John Smith of the amount of consideration named, that the title, free and unencumbered, of the articles mentioned shall pass to said John Smith.

(Signed) John Smith. "

Many of the reservations are best adapted to the live stock industry rather than farming. From the latest figures it appears that the Indians of the United States under Federal supervision own individually \$26,703,027 worth of live stock in addition to tribal stock held in common, valued at approximately \$2,121,412; Indians to the number of 43,309 being engaged in the live stock industry. In addition to the farmers, there are also employed fifty-three superintendents of live stock and stockmen who are charged with the responsibility for the successful conduct of this industry on sound business principles.

While the Indian Bureau is not under the jurisdiction of the United States Department of Agriculture, but maintains its own distinctive agricultural organization under the direction of the Commissioner of Indian Affairs, yet the officials and employees of that department have voluntarily placed their facilities at the disposal of this office for the benefit of the Indians wherever practicable. The Indians are further instructed in all the details of successful modern farming by stereopticon lectures by experts from the United States Department of Agriculture or the State agricultural college under a co-operative plan inaugurated two years ago; and through the medium of boys' and girls' agricultural clubs; and their interest and enthusiasm are developed by holding agricultural fairs where they exhibit their products in open competition with each other, suitable prizes being given, or in competition at conveniently located county or State fairs. Most of the reservation fairs are managed entirely by the Indians (under the supervision of the superintendent), who have organized associations for

this purpose. On many of the reservations the Indians also maintain farmers' clubs organized with a view to promoting their agricultural welfare.

The principal concern of the Service at the present stage of Indian progress is to make them producers instead of merely consumers, from which it necessarily follows that the greatest strength of its agricultural organization has been directed toward production rather than distribution. Therefore, no particular organization is maintained for the specific purpose of marketing Indian agricultural products, each Indian being permitted to dispose of his surplus crops wherever he pleases. The Superintendent, however, may advise them with respect to the best markets and must see that they obtain fair prices for their products.

Schoolroom instruction is given the Indian boys in the theory and principles of modern agriculture, which they must then apply in actual practice on individual tracts of land assigned to them on a farm maintained for this purpose, the crops produced being utilized for the partial support of the school.

The related subject of home economics among the Indian women is given much attention, involving, as it does, the preparation of food from the products of the soil, a force of sixty-eight field matrons being employed to instruct the Indian women in all that pertains to successful home-making and healthful living, particularly the preparation and serving of food. Theoretical and practical instruction on such topics is also given the Indian girls while at school.

Quantity and Value of Crops Produced by Indians. Fiscal Year 1916.

Produce	Quantity	Unit	Average Value	
			Unit	Total
Alfalfa hay, etc	237,605	Tons	\$ 8.05	\$ 2,032,641
Barley and rye	231,498	Bushels	.80	185,198
Corn	1,117,797	Bushels	.45	503,010
Oats	1,471,020	Bushels	.32	470,726
Wheat	1,430,830	Bushels	.95	1,359,288
Vegetables	—	—	—	742,856
Total				\$ 5,293,719

GREAT BRITAIN AND IRELAND.

AGRICULTURAL LABOUR IN IRELAND AND THE MIGRATION OF IRISH AGRICULTURAL LABOURERS.

OFFICIAL SOURCE :

REPORT AND TABLES RELATING TO IRISH AGRICULTURAL LABOURERS, presented to the Lord Lieutenant of Ireland by the Department of Agriculture and Technical Instruction for Ireland on 14 October 1916.

§ I. THE SUPPLY OF AGRICULTURAL LABOUR.

For many years there has been a marked scarcity of agricultural labourers in Ireland, and this has been intensified because numbers of them have joined the army since the outbreak of war. No statistics are available as to 1915 ; but for the pre-war period we have the census returns. The reports of the Irish Census Commissioners state however that a large proportion of the persons returned as general labourers may be assumed to be agricultural labourers ; and therefore the following table gives not only the number of agricultural labourers returned at each census from 1871 to 1911, but also the number of general labourers except those in the six county boroughs.

Year	Agricultural Labourers			General Labourers		
	Men	Women	Total	Men	Women	Total
1871	446,682	62,662	509,344	194,826	19,859	214,685
1881	300,091	36,036	336,127	104,647	9,396	114,043
1891	258,042	22,044	280,086	82,854	4,592	87,446
1901	217,652	14,219	231,871	76,870	2,165	79,035
1911	195,864	4,036	199,900	100,960	1,139	102,099

These figures show a very serious decline in the supply of agricultural labour, but they do not show the further and equally serious decline in efficiency. It is the best labour which has left the country, and farmers complain of the inefficiency of their labourers as much as of the difficulty of getting them.

§ 2. THE WAGES OF AGRICULTURAL LABOURERS.

Returns furnished by the District Inspectors of the Royal Irish Constabulary and by a number of representative farmers prove considerable variation in the rates of wages paid in 1915, even within each county. It is believed however that the following table shows the general rate for that year in the case of male agricultural labourers who did not live in free cottages or receive any allowances in kind.

	Ploughmen		Cattlemen		General Labourers		Boys	
	From	To	From	To	From	To	From	To
Leinster . . .	14s	15s 9d	12s 6d	14s 3d	11s 9d	13s 6d	8s 6d	10s 3d
Munster . . .	14s 9d	17s	13s 6d	15s 6d	13s	14s 9d	8s 9d	10s 6d
Ulster	14s 9d	17s	13s	15s 3d	12s	14s 3d	8s 6d	10s 6d
Connaught . .	13s 6d	16s 6d	13s 3d	15s 6d	11s 6d	13s	7s 9d	10s
Average for all Ireland . . .	14s 3d	16s 6d	13s	15s 3d	12s	13s 9d	8s 6d	10s 3d

The value and number of allowances, where these are given in addition to a money wage, vary considerably, largely in accordance with the character of the farming, whether it be grazing, tillage or mixed farming. The allowances may include a free house and garden, a potato ground, milk, fuel or grazing, or some or all of these; and their estimated value is from about 4s 6d to 5s 6d or 6s a week. When full board and lodging are given they are held to be worth from about 8s 6d to 10s 3d a week.

Owing partly to the scarcity of labour, but largely to the further increase in the cost of living, the general rates of weekly wages in 1915 were higher by from 1s to 1s 6d., and the values of the weekly allowances by about 1s 6d, than the corresponding values in 1914.

The wages of temporary labourers also advanced in 1915 as compared with 1914. For men the usual daily wages in 1915 were from 2s 9d to 3s 6d at sowing time, from 3s 3d to 3s 9d during the haymaking, from 3s 6d to 4s during the corn harvest, and from 2s 9d to 3s 3d during potato digging. For women they were from 2s to 2s 6d for sowing, from 2s to 2s 9d for haymaking, from 2s 6d to 3s during the corn harvest and from 2s to 2s 3d for potato digging. The daily rates for casual winter work were from 1s 6d to 2s 6d.

§ 3. THE MIGRATION OF AGRICULTURAL LABOURERS.

a) *The Number of Migrants.*

In spite of the scarcity of agricultural labourers a number of them migrate each year for a season only, generally to Great Britain but in some

instances to parts of Ireland distant from their homes. Estimates of the number of such migrants, which are believed to be approximately accurate, have been based on (1) returns compiled by the enumerators of agricultural statistics, being the results of enquiries made in June of each year at the homes of the migrants; (2) returns furnished by the Registrar General as to the temporary emigrants from each Irish port except Dublin; and (3) returns furnished by the railway companies, for 1911 and previous years, as to the harvestmen who took tickets for journeys *via* Dublin. The following table shows these estimates:

Year	Number	Year	Number	Year	Number	Year	Number
1896	27,000	1901	28,000	1906	25,000	1911	15,500
1897	27,000	1902	27,000	1907	24,000	1912	16,000
1898	30,000	1903	25,000	1908	22,500	1913	15,000
1899	31,000	1904	25,000	1909	20,500	1914	13,000
1900	32,000	1905	25,000	1910	18,500	1915	13,000

The decrease which is here shown from 32,000 in 1900 to 13,000 in 1915 is very considerable,

b) The Places from which there is Migration.

More details are obtained from the returns by the police enumerators of agricultural districts made in June of each year, as to the persons who had then migrated or who intended to migrate.

These returns include only about 60 per cent. of those who actually migrated, yet they may be taken as typical; and the following figures, abstracted from these returns, as to the number of persons emigrating from each province, may therefore be considered as giving the proportion in which the migrants were distributed over the provinces.

	1911	1912	1913	1914	1915
From Connaught	6,848	6,867	6,547	5,438	5,258
" Ulster	1,824	2,097	1,988	1,735	1,845
" Munster	168	230	136	145	204
" Leinster	38	23	16	23	47
Total . . .	8,878	9,217	8,687	7,341	7,354

As regards only men over twenty years of age, it is calculated that the migration rate in 1915 for all Ireland was 5.3 per 1,000; for Connaught it was 27.2, for Ulster 3.8, for Munster 0.5 and for Leinster 0.1. The counties having the highest migration rates were Mayo 74.1 per 1,000, Donegal 30.5 per 1,000, Roscommon 13.7 per 1,000, and Sligo and Galway 7.0 per 1,000. In one Connaught county, Leitrim, the migrants numbered only 1.1 per 1,000.

From the Poor law Union returns, which concern women and men of all ages, the facts as to migration can be further localized. The highest migration rate in Ireland in 1915 was in Swinford union in County Mayo where 42 out of every 1,000 inhabitants migrated. The next highest rates were 31.9 per 1,000 in Dunfanaghy, Co. Donegal; 29.8 per 1,000 in Westport, Co. Mayo; 28.2 in Glenties, Co. Donegal; 25.0 in Belmullet, Co. Mayo; 19.1 in Castlebar, Co. Mayo; 16.7 in Claremorris, Co. Mayo; 12.4 in Castle-reagh, Co. Roscommon; and 10.6 in Glennamaddy, Co. Galway.

The following figures, taken from the returns of the police enumerators, show the proportion of women who migrated each year to be unimportant.

	Men	Women	Total
1911	8,545	333	8,878
1912	8,789	428	9,217
1913	8,394	293	8,687
1914	7,112	229	7,341
1915	6,927	427	7,354

c) The Classes of the Migrants.

As regards the classes from which migrants are drawn 6,338 or 86 per cent. of those included in the returns of the police enumerators for 1915 belonged to the class of landholders — 1,578 being themselves landholders, 4,372 landholders' sons and 388 landholders' daughters. Of the landholders 227 had holdings which did not exceed 5 acres, 587 held from 5 to 10 acres; 425 from 10 to 15 acres; 166 from 15 to 20 acres; 78 from 20 to 25 acres; 35 from 25 to 30 acres; 23 from 30 to 40 acres; and 37 more than 40 acres. The larger holdings were chiefly rough grazing land and mountain land of low value.

d) The Places to which there is Migration.

The following table shows the percentages of the total number of migrant labourers from 1911 to 1915 who went, respectively, to England and Wales, Scotland, and Irish districts other than those in which they had their permanent home.

Year	England and Wales	Scotland	Irish countries	Total
1911	73.2	22.0	4.8	100.0
1912	65.8	27.3	6.9	100.0
1913	70.9	23.7	5.4	100.0
1914	69.4	27.0	3.6	100.0
1915	64.9	30.0	5.1	100.0

4,776 migrants were enumerated as going to England in 1915 and 4,584 of them came from Connaught — 3,706 or 78 per cent. from County Mayo alone. After haymaking in Lancashire and Yorkshire they usually find further employment in these counties at turnip hoeing etc. They then move to Lincolnshire and North Cambridgeshire for the corn harvest, and thence to Warwickshire, Staffordshire and Cheshire for potato digging. In 1915 their usual wage was about 25s a week, in addition to free lodging and fuel and an allowance of potatoes and milk or beer. At piece work they earned as much as 35s or even 40s a week.

The migrants enumerated as going to Scotland in 1915 numbered 2,205 ; and of these 1,579 were from Ulster, and 622 from Connaught — including 1,538 or 70 per cent. of the whole number from County Donegal and 565 or 26 per cent. from County Mayo. They were chiefly engaged on potato lifting, on which some of them spent twenty weeks. As a rule they start work in Ayrshire early in June and scatter over the country later in the season, and they return to Ireland in November. In 1915 they usually earned from about 25s to 30s a week, together with free lodging and fuel and sometimes an allowance of potatoes. On piece work they made as much as 35s a week.

English and Scottish employers bear testimony to the trustworthiness, skill and thrift of the migrants. They generally save from half to three quarters of their earnings and sometimes take as much as £20 home with them. The amount of their earnings and the rates of agricultural wages in Ireland, as these have been set out, go far to explain the continued migration in spite of the scarcity of labour in Ireland.

SWEDEN.

CONDITIONS OF LIFE AND WORK AMONG THE FORESTS OF VÄRMLAND, DALECARLIA AND NORRLAND.

OFFICIAL SOURCE:

SKOGSARBETARNAS LEVNADS OCH ARBETSFORHÅLLANDEN I VÄRMLAND, DALARNA OCH NORRLAND. (*Conditions of Life and Work among the Foresters in Värmland, Dalecarlia, and Norrland*, Stockholm, 1916.

INTRODUCTION.

On the occasion of a proposal made during the session of 1912, the Riksdag asked the government to have a report drawn up, as soon as possible, on the position of foresters and the conditions of their life in Norrland and in districts similarly circumstanced from the point of view of forestry. The government was further requested to take such subsequent measures as the report rendered advisable, laying the necessary proposals before the Riksdag if appeal to this body should be necessary.

The government commissioned the Administration of Commerce to make this report and bring forward the necessary proposals.

To discharge such a task it was requisite first to make a profound and impartial enquiry into the social and economic conditions in which this numerous class of workmen live and work. This enquiry was prepared and begun by the Administration of Commerce after consultation with competent persons, specially summoned; and was completed by the Royal Administration of Labour and Social Thrift, on which body the earlier duties of the Labour Office, a department of the Administration of Commerce, were incumbent after 1913.

The report embraces not only Norrland but also the northern districts of Dalecarlia and Värmland, in which the conditions of the foresters' lives are analogous to those in Norrland; and it concerns not only the foresters proper but also the men employed on floating timber, charcoal burning and such tasks. Its material has been collected by means of several different statistical enquiries. In order to obtain an inclusive view and to discover the general conditions of life and work among the men employed in the forests within the whole sphere of the enquiry, a system was organized of consulting a large number of official doctors, inspectors of forests, associations of employers and of labourers in the forest industry, and delegates of the communes nominated by the societies of rural economy. From this combination of official authorities, associations and competent persons 615 answers were received to a special form of questions. On the basis of the

general data thus collected detailed descriptions of certain more limited parts of the zone of enquiry were established. Thus 173 forest holdings and ten charcoalburners' yards, which employed respectively, 8,360 and 151 workmen, were selected on the proposal of the departmental and forest administrations and the chief inspectors of forests, as offering types of the different natural and local conditions and the different methods of forestry; and in these in February and March 1913 an enquiry was made by some fifty special agents who collected on the spot, following a detailed questionnaire, data as to the conditions of work, housing and feeding. As regarded certain forest domains taken to be typical, additional individual data, on the subject of the working hours, the wages and the personal condition of all the employees, were furnished by the respective employers according to a special form.

The report, which is mainly based on material thus obtained, first treats of the conditions, the development and the present position of the forest industry in North Sweden. In this connection emphasis is laid on the abrupt and the profound transformation of the whole economic and social life of the population, and similarly of methods of cultivation, owing to the rapid development of the timber industry within a short space of time, that is within two or three generations. It is remarked that in this circumstance must be sought the origin of the very complicated social problems, which under the name of the "questions of Norrland" have latterly attracted much attention from the public and from the government. Among these problems is that of the forest workpeople, and it is connected with the problem of improving conditions of life among this most important class of society to which belong, more or less, the whole male rural population of Northern Sweden, some 150,000 persons.

§ 1. THE EXPLOITATION OF THE FORESTS.

The legal person, whether individual or corporation, who is the true ultimate employer of labour on forest holdings is the landowner. Often, however, the landowner sells the standing timber, which is then exploited not on his behalf but on that of the purchaser, who thus becomes the employer, properly so-called. The difference is very important to conditions of work, for it is in the nature of things that a limited liability company, for example, should have more desire and ability to ensure good conditions to its forest labourers, when there is question of a long projected tree-felling within its forests, than when the question is one of making the quickest possible use of a purchased right of exploitation. In 48 per cent. of the holdings covered by the enquiry the owner of the timber was also the landowner; in 52 per cent. he was not. Of the forest workmen 62 per cent. were employed by landowners exploiting their own forests and 38 per cent. by purchasers of timber. As regards the different categories of owners of woods the enquiry shows that the State and the communes have never practised tree-felling except on their own lands, and that rural landowners have done so on land not their own only exceptionally. Companies have however cut down purchased

woods as often, and timber merchants three times as often, as their own woods.

On forest holdings the landowning employer is generally represented by keepers or other employees ; but such supervisors are too few to be able to exercise over workmen scattered over large forest areas the effective control possible in manufacturing industries. This is the defective side of the organization of work in the forest industry, and gives it quite another aspect than manufacturing industries ; but on the other hand the rural population of Northern Sweden enjoy the advantage of a strong business sense and show a much developed spirit of initiative.

The carters form the most important category of forest labourers, each of them being responsible for one or more of the lots forming sections. The woodcutters and other labourers — the loaders, the roadmakers, etc. — should properly be considered as carters' assistants for they are most frequently engaged and paid by the carters.

As regards the proportionate size of the different groups of labourers, the enquiry shows that of a total number of 8,360 the carters form one third, the woodcutters rather more than a half, and labourers of other kinds about a sixth. But the proportion in the different departments deviates considerably from this average, partly owing to differences in the method of work.

The facts which have been collected give some information as to the age and civil status of the workmen. Ninety-two per cent. were found to be over eighteen years old ; the large majority of the 8 per cent., who were under that age, being employed as woodcutters. Of the total number of adult workmen 52.7 per cent. were bachelors, and 47.3 per cent. married men, widowers or divorced men ; these percentages being 32.1 and 67.9 in the case of the carters, 65.6 and 34.4 in that of the woodcutters, and 55.4 and 44.6 in that of the other workmen. The differences in these percentages are closely connected with the unequal distribution of men of the same age in the several categories of workmen, but are also due to the fact that the workmen are derived in very varying proportions from the different classes of society.

If the extent to which the three chief classes of the population — the landowning cultivators, the leaseholders and the labourers — are represented on forest holdings in the various districts be examined, the following results are obtained :

		Depart- ment of Värmland	Depart- ment of Koppar- berg	Depart- ment of Gävle- borg	Depart- ment of Väster- norrland	Depart- ment of Jämt- land	Depart- ment of Väster- botten	Depart- ment of Norr- botten	Total Zone of Enquiry
Out of 100 workmen there were	Landowners	47.7	63.1	18.3	38.2	35.5	52.6	55.6	41.2
	Leaseholders	16.3	17.0	20.6	15.8	10.5	21.9	13.3	17.0
	Labourers	36.0	19.9	61.1	46.0	54.0	25.5	31.1	41.8

It is seen that the deviations from the general averages in the several departments were considerable ; and as — at least in forest districts — the

rural population regularly seek winter employment in the forests, the departmental averages reflect to some extent the different composition of the population in the several districts.

If all the departments be considered together it is found that the landowning cultivators who take part in exploiting the forests together with their families belong as to 69 per cent. to the local population while 31 per cent. are strangers. The leaseholders and their sons are domiciled as to 67.9 per cent. on lands belonging to the owners of the wood, as to 32.1 per cent. on lands in other ownership. In the general group of labourers three subdivisions can be distinguished: 41.4 per cent. who worked in the forests all the year round, 44.5 per cent. who in certain seasons were employed on agriculture, and 14.1 per cent. who were employed on the forest industry for periods of time (craftsmen etc).

If the proportion in which special occupations are peculiar to certain social groups be examined, it is found that of the landowners and leaseholders, respectively, 43.0 per cent. and 48.9 per cent. were carters, 42.4 per cent. and 36.9 per cent. woodcutters, while 14.6 per cent. and 14.2 per cent. followed other special trades. In the group of labourers the corresponding percentages were 12.8, 66.9 and 20.3. A carter, as has been said, is usually responsible for the exploitation of a forest lot; and may therefore be assumed to have a certain authority and economic independence; very rare in the class of simple labourers, and found rather among the landowners and leaseholders, and especially among such of them as have reached a certain age and position. Generally the carters manage farms large enough to support horses. They employ as woodcutters and for other labour their own sons and their sons-in-law and farm-servants in the first place, then their relatives, friends and neighbours. Usually they avoid engaging unknown journeymen workmen, for these are considered to be untrustworthy and likely to trouble the friendly and confidential relations between a carter and his assistants which are an indispensable condition of good and profitable work. The amount of the revenue now derived from forestry in North Sweden, in spite of the inadequate number of the supervisors, is largely due to the fact that this industry is served by numerous bodies of workmen among whom there is this good understanding between chiefs and subordinates.

The prevalent conditions have not failed to affect the labour contracts customary on forest holdings. These are usually in writing: they were so in the case of 157 (90.8 per cent.) of the holdings covered by the enquiry and 88.4 per cent. of all the workmen. In 1.7 per cent. of the places investigated contracts were made with outside employers, in 19.7 per cent. with one or more carters commissioned by the others, in 68.2 per cent. with all the carters, and in 1.2 per cent. with the carters and woodcutters together. The report gives a detailed account of the terms of contracts, reproducing a certain number of them as being typical. It treats of complaints made as to some of their provisions, as for example those concerned with the system of fines, the form of engaging woodcutters, the liability of carters for accidents

attendant on labour, the effect of the system of contracts on the price of labour, etc.

Tree felling takes place principally in winter and the duration of the forestry season depends consequently in the first place on the very variable duration of the snow in different places. It is influenced also by many other circumstances, as by the greater or less amount of local forest enterprise, local customs, etc. In the whole zone of enquiry it may be said that there is a normal forest exploitation season of seventeen weeks or four months, a little less in the more southern and the coast regions and a little more in the north and in the forest regions of the interior.

It must however be possible only quite exceptionally to carry on the work on all the working days of this period, which should rather be looked upon as the season in the gross. Farmwork, holidays on feastdays, journeys to get provisions and for other reasons, all take time which must be deducted from the actual working days of a forest exploiting season, which actually is far from attaining to its maximum length but covers from fifty to a hundred days.

As regards the average number of working hours in a day these are usually seven or eight in the first part of the season, hours of rest being deducted. When in February the days become lighter the net hours of work are lengthened to an average of nine or ten.

These data chiefly concern woodcutters. A carter's day is usually longer, carters having to give much time to the care of their horses and means of transport. Special circumstances often make the length of their working days irregular. It appears that they work on Sundays only exceptionally, usually on the execution of repairs or on other tasks enabling the normal course of the weeks' activity.

Work on forest holdings is almost invariably piece-work and is paid for according to its quantity, irrespectively of the time spent on it. It follows that to establish statistics as to the workmen's wages and earnings is especially difficult and is possible only in a limited degree. To obtain the most certain data possible a certain number of enquiries were however organized, the results obtained being used to check each other, mutually. Thus on the one hand information as to the normal daily wages of carters, woodcutters and other workmen were collected from the authorities and from competent persons in the various districts, and on the other hand the local investigators calculated the average amount earned by a day's work in the places they visited. Finally with respect to a certain number of these places the real gross and net earnings of the workmen were established from wages-lists supplied by the employers. From the chief results of the enquiries the following averages can be deduced. They do not however show the notable variations in wages according to districts and to individual holdings, or their variations among the different workmen in one place.

Department of Värmland	Department of Koppar- berg	Department of Gävle- borg	Department of Väster- norrland	Department of Jämt- land	Department of Väster- botten	Department of Norrbotten	General Average
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Carters (horse and man)

Average daily wage according to:

Data furnished by commune	(1) 6.94	8.31	7.51	6.84	8.78	6.32	6.78	7.26
» » » local enquiry	7.56	9.33	10.63	7.21	8.16	6.86	7.27	8.40
» » » wages-list	(8.69)	(7.73)	10.58	7.06	9.78	6.56	7.50	8.64

Woodcutters

Average daily wage according to:

Data furnished by commune	3.05	3.99	3.60	3.38	4.23	3.06	3.32	3.51
» » » local enquiry	3.23	3.91	4.51	3.22	3.62	3.17	3.49	3.68
» » » wages-list	(4.16)	(4.06)	4.89	3.15	3.96	3.00	3.62	3.97

(1) All these figures express numbers of crowns. 1 crown of gold = about 18 1/4 d at par.

From these data it must not be concluded that the earnings discovered by local enquiries and from wages-lists for the season 1912-1913, which was as regarded snow a bad season, were generally superior in amount to those which seem from the data supplied by the communes to be normal. The difference arises chiefly from the fact that the latter data are of fairly comprehensive derivation and thus represent general conditions in the respective departments, while the enterprises which have been the object of special enquiry are chiefly situated in forest areas in which conditions of lodging and provisioning are difficult, and the price of work therefore reaches a higher level than in agricultural areas.

Where the forest to be exploited is at a distance, in the interior of the forest areas, workmen can neither live nor eat at home. They must live on the provisions they bring with them or buy on the spot, and these are naturally limited to a small range of articles of diet, easily cooked and kept — chiefly bacon, bread, butter, flour, coffee and sugar. With these they prepare their own meals. The idea of engaging special assistants, generally women, to cook and do housework has lately arisen, especially in the southern parts of the zone of enquiry. The truck system, which obliges workmen in one way or another to buy their provisions from their employer, the foreman or a special dealer, may not now be followed in any of the woods under exploitation. The lack however of a common organization for the procuring of stores and the cooking of food, the waste of foodstuffs, the defective cooking, the increased consumption and the increased prices due to the distance over which transport is necessary — all this causes the cost of living to be fairly high while works of forestry are being conducted. The average daily cost is placed at 1.50 crowns for a man and 2.50 crowns for

a horse, that is 4 crowns for a man and horse. These figures must be remembered when the data we have reproduced as to the earnings of forest labourers in the various districts and enterprises are estimated.

Special attention has been given to housing accommodation because the enquiry was provoked by complaints as to the manner in which the forest labourers were lodged and the frequent defectiveness and inadequacy of the temporary forest huts.

The labourers of course endeavour to live at home as much as they can. Failing this possibility they use any space available in the farms and houses of tenants and in shepherds' cottages, and if these do not suffice more or less temporary huts have to be built for them. Of all the labourers employed on the forest holdings investigated, 37.1 per cent. were lodged on farms, 5.6 per cent. in cottages and 57.3 per cent. in forest huts. They were most frequently lodged in the houses of inhabitants in the departments of Värmland, Gävleborg and Västernorrland; in the other four departments they were mainly accommodated in forest huts. They were lodged in cottages in any large proportion only in the departments of Kopparberg and Jämtland. Labourers lodged in farms and cottages lived far further from their work than those inhabiting the huts, which in a third of the cases were situated at the place of work.

Detailed information was obtained as to the accommodation of 1,512 of the 3,103 forest labourers lodged on farms. They shared with 773 persons belonging to the farms 447 rooms of which 390 were dwelling-rooms and kitchens and 57 wash-houses and similar offices. The rooms varied in size but the average floor area was 22.1 square metres (1) and the average cubic area 52.2 cubic metres (2). All the lodgings were provided with windows and fireplaces, generally an open fireplace or a kitchen stove. As regarded sleeping accommodation there were generally beds or recesses taking the place of beds, but in ten cases there were not enough beds and the workmen had to sleep on the floor. As regarded the quality of the lodgings 13.3 per cent. of the rooms in dwelling houses were characterized as draughty, 10 per cent. as cold, 1.3 per cent. as damp and 1.5 per cent. as smoky. Of the lodgings in outhouses the following far larger percentages had the same respective defects: 36.8, 42.1, 1.8 and 3.5. On an average five persons were lodged in one room which meant much crowding. The average floor area for each person was 5.6 square metres, the average cubic area 13.5 cubic metres. In the case of only 5.9 per cent. of the workmen thus lodged the cubic area enjoyed by each was more than 20 cubic metres; in the case of 32.5 per cent. it was between 10 and 20 cubic metres; and 61.6 per cent. must therefore be considered to have been lodged in extremely overcrowded rooms.

The shepherds' cottages are of the same type as the other cottages in their respective districts; but they are older and have smaller rooms and more primitive arrangements, and above all they are built not for the win-

(1) 1 square metre = 1.196 square yards.

(2) 1 cubic metre = 1.308 cubic yards.

ter but for summer. In these huts 471 forest labourers were lodged in eighty rooms, of seventy five of which we have descriptions. All the huts had windows and generally they were heated by open fireplaces. As sleeping accomodation there were usually recesses or beds, but in twenty-one rooms there was only a common camping place. Draughts were a subject of complaint in 53.3 per cent. of the rooms, cold in 46.7 per cent., damp in 5.3 per cent and smoke in 2.7 per cent. The percentages are much higher than in the case of the farms. On an average six persons slept in one room which meant that they were very closely packed. Each person enjoyed on an average 3.3 square metres of floor space and 6.9 cubic metres of air. Only 0.2 per cent. of all the workmen so lodged enjoyed 20 cubic metres or more of air and 7.5 per cent. from 10 to 20 cubic metres. For the others, that is 92.3 per cent., the allowance of air was less than 10 cubic metres a head, and therefore there was incontestable overcrowding.

As regards the temporary forest huts they are of many types determined by the various needs of forest labour and local custom. Behind these local variations several principal types can be discerned. The *eldfall* or *fire hut* is a wooden hut with a roof sloping to a central pitch which has in the middle of its room an open hearth (*eldfall*), a sort of rectangular box made of tree-trunks and furnished with sand and earth, on either side of which are common camping places. The chimney-hut is a charcoalburner's hut for from two to four men and has long, sloping walls, covered with earth or other substance, a stone or brick chimney at one end, and one or two camping places beside the walls; or in some cases it has straight walls, and a big fireplace against one wall or in a corner, which therefore draws better than the fireplaces of fire huts. Of the 521 forest huts inhabited when the local enquiries were made 52.2 per cent. were fire-huts and 47.8 per cent. chimney-huts. Of the 4,821 labourers lodged in huts 67.8 per cent. and 32.2 per cent., respectively, dwelt, in huts of the two types, the greater percentage inhabiting the fire huts because each of these housed on an average twelve persons, while the average chimney-hut, which was only half as large, housed only half as many.

Such temporary dwellings as the forest huts, intended to be used only for a short time, were usually more or less good or bad according to the period at which they were built. Three hundred and three or 58.2 per cent. of them were old, dating from the time of earlier tree-fellings, and had hardly been brought into a habitable state, while 218 or 41.8 per cent. had been built for the tree-felling of the current year.

It is noteworthy that only 26.1 per cent. of these new huts had been built in summer — 73.9 per cent. in winter —, although if building be begun after the soil is frozen it is almost impossible to make warm dwellings which are not draughty. The building of forest huts in winter is generally, especially in the northern departments, not undertaken by an owner on his own soil; but follows on the annual sales of standing timber by the State at the end of the autumn. Complaints on this subject have not been barren of results; and steps have recently been taken to time the sales so that they al-

low the preliminary work necessary to the exploitation of forests to be undertaken in the propitious season.

Half the new huts had been built by the owners of the forests or the trees; half by the workmen themselves, with or without compensation. Huts built by employers are generally very superior to those which the labourers have been able to make for themselves. A mistaken economy has caused the latter to be constructed as cheaply and quickly as possible, regardless of considerations of hygiene. A fire-hut is said usually to cost 100 crowns in addition to the wood used for it, and the little chimney-huts of the charcoalburners' type only half as much. The cost of the larger and better equipped huts is sometimes two or three hundred crowns or even more.

Most of the huts examined were built of dead and dry pinewood, but green wood had been used to build quite a third of them, either wholly or partially. The roofs were made of split trunks or boards, a layer of mud or other substance being inserted to conserve the heat, and the whole being in most cases crowned by a sloping roof, off which the water ran, made of split trunks, boards, shingles, tarred cardboard, birch bark or similar material. The floor was generally of beaten mud, only about a fifth of the huts, and those generally chimney-huts, having wood floors. A third of the huts had no window, the others a sort of skylight a few inches square. We have already mentioned the fireplaces. As sleeping accommodation three fourths of the huts had common camping places while in the others there were beds or box-beds.

As regards the general conclusions made by the local investigators as to the huts they examined, the fire-huts, with their central fireplaces, their large outlets for smoke and other openings, were found to be more defective than the more compact chimney-huts. Of huts of the former type 62.1 per cent. were called draughty, 47.1 per cent. cold, 39.7 per cent. damp and 54.8 per cent. smoky; while among huts of the latter type these percentages were, respectively, 37.8, 25.7, 25.3 and 28.9.

The ground area of one of these forest huts is on an average that of one inhabited room — 22.9 square metres; but since the roof is lower the cubic area is proportionately small, averaging 42.9 cubic metres. Since most of the forest huts were built and equipped exactly to meet determined needs the number of their inhabitants is less variable but also much larger than that of the farm lodgings. If all the huts be taken together the average ground area for one person is found to be 2.8 square metres, the cubic area 5.4 cubic metres. The average ground area for one person is 2.8 square metres in the fire-huts, considered separately, 3.1 square metres in the chimney-huts, while the average cubic area is 5 cubic metres in the fire-huts and 5.8 cubic metres in the chimney-huts, overcrowding being thus most acute in the fire-huts. In huts of both kinds the space allotted to one person is very inferior to the minimum generally considered hygienically necessary. However exigencies in the matter of cubic area can and should be different and considerably less when there is question not of closed rooms but of temporary and scattered dwellings, having many di-

rect outlets to the open air. Yet even if the huts be judged as temporary lodgings and with due regard to the special conditions of forest life, a large number of those at present existing must be held to be decidedly inadequate and a larger number to be extremely overcrowded.

§ 2. TIMBER FLOATING.

When in spring the workmen employed on the winter tree-felling are distributed over different branches of labour, about a tenth of their number seize the opportunity for work offered by timber-floating, which industry is generally managed in this country, technically and economically, not by the private owners of woods but by timber floating societies formed according to certain rules. The work is one which needs much strength and endurance, and it is therefore the young foresters who become floaters. Consequently a relatively large number of the floaters belong to the class of labourers; while in the class of forester landowners and leaseholders not the heads of families but their sons and other relatives, who are not absolutely needed for agriculture in the floating season, engage on the work.

The conditions of timber-floating are characterized, like those of forest exploitation, by the independence and responsibility of the labourers, or rather of the working gangs, as a consequence of the small number of workmen and the scattered and changing places of work. These circumstances determine the character of the labour contracts customary in the case of timber floating. They are usually contracts for piece-work concluded with a land-owning cultivator or a leaseholder living near the stream of water, or with some other person accustomed to the local timber-floating. The contractor undertakes to ensure the floating of the wood in a certain district, he employs his servants and neighbours or engages additional labour for the purpose. These contracts are also concluded with gangs of a greater or less number of workmen who assume collective responsibility for the work which they do under the direction of a foreman chosen by themselves.

On the streams and the affluents the work generally lasts about four weeks, from the middle or end of May to St. John's day. On the large rivers the season is longer, but it is by no means the same along the whole course of a river: in the lower reaches the larger quantity of floated timber lengthens it, so that near the mouth, especially near the barriers where sorting takes place, it often lasts throughout the summer. An average working day lasts 12.4 hours on the smaller streams, 11.7 hours on the large rivers; but these averages are highly abstract for the work is most irregular. Sometimes the floaters merely supervise; sometimes even, for days together, they are quite idle; but at other times their working capacity is taxed to its utmost physical limits, on occasion for several days and nights on end.

Although timber-floating is mainly piece-work the wages and earnings of those engaged on it are far less easy to discover than the earnings of the other forest labourers. The regular average daily wages of timber-floaters in the different departments appear from the following table:

Average Daily Wages in Crowns.

	Department of Värmland	Department of Koppar- berg	Department of Gävle- borg	Department of Väster- norrland	Department of Jämt- land	Department of Väster- botten	Department of Norr- botten	General Average
<i>Timber Floating on</i>								
Tributaries	2.99	3.83	3.71	4.54	4.02	4.37	4.63	4.14
Chief rivers	3.16	4.00	3.78	4.00	4.30	3.72	4.17	3.94

Food is provided and prepared during the timber-floating season as during the winter forestry season, certain modifications arising naturally out of the difference of conditions, place and time of year.

The question of lodgings during the spring timber-floating on the streams and their affluents presents the greatest difficulties. Especially in the northern part of the zone of enquiry atmospheric conditions are still severe, the temperature is near zero (Fahrenheit) and there are even falls of snow, and dwelling houses are rare in these districts. Often the men are obliged to pass their hours of rest in the open air beside a fire, beneath a temporary roof or a boat turned upside down or with nothing to shelter them against the rain except a reindeerskin, a bed of pine branches or something else of the sort. When timber-floating reaches the chief rivers there is a notable improvement in the conditions in which labourers are lodged. As we have already said a large number of them live at home, but even the others find good lodgings, the custom being to travel with the floated timber until some farm is found. Where the floating routes pass through sparsely populated forest regions the timber floating societies have, especially of late years, spent much trouble and money in establishing the lodging accommodation which is as necessary to the profit of the enterprise as the workmen themselves. Generally the different types of forest huts have been taken as models; but as the floaters' huts are intended for more permanent annual use than the foresters' huts they are generally built more solidly, with higher roofs and larger windows.

§ 3. CHARCOAL BURNING.

As well as the exploitation of forests and timber-floating, charcoal-burning is from the economic and social point of view one of the most important forest industries. The report deals however only in passing with that production of charcoal which has for long been one of the most important elements in intensive forest exploitation in the factory regions. It is more closely concerned with the charcoal-burning in forests which largely conforms to the system of extensive forest economy still followed in the north of Sweden. This forest industry aims at utilizing the tree-tops and other remains after the trunks have been cut up, and above all the large

quantity of dead trees, standing or fallen, which cover large areas in the forests of Norrland.

The employer in the case of charcoal-burning of this type in the forests is generally a firm owning a sawmill, a charcoal company or some individual — a cultivator landowner, a leaseholder or a rural tradesman who trades in charcoal to a greater or less extent. In certain districts, especially in Upper Norrland, charcoal production is undertaken as a domestic industry by labourers and small cultivators who buy dead wood and other waste in the State forests, cut it up, burn it, and sell the charcoal to traders or to ironworks directly.

Small cultivators as well as landless workmen take part in the charcoal-burning in the forests. The proportion in which the different social groups are represented in the industry appears from the following figures : of 151 workmen employed in ten charcoal-burning yards which were the object of an especial enquiry, sixty-seven belonged to the landowners' class, eight to that of the leaseholders, seventy-six to that of the labourers. The chief group of labourers employed on charcoal-burning is that of the charcoal-burners, each of whom usually contracts to manufacture a fixed quantity of charcoal for a fixed payment. Where charcoal is manufactured in the forests by a more or less primitive method the charcoal-burners cut the wood for themselves and with their own or with hired horses transport it to the stacks, whence they also transport the charcoal, when it is ready, to the loading places. Where the technique of charcoal-burning is more advanced the charcoal burners generally engage special carters, woodcutters and other workmen whom they pay themselves and who should be considered as being in some degree their assistants.

The charcoal-burning season ordinarily lasts about six months in the forests of Norrland. It was sufficiently difficult to obtain precise information as to the length of the working day, but as far as cutting and transporting the wood, setting up the stacks and transporting the charcoal are concerned, the work generally coincides with that of exploiting the forests as we have described it. When however charcoal burning is in progress the work is more irregular, for at certain times it is necessary to watch the stacks night and day. On these occasions Sunday work is inevitable, but it is always exceptional.

As regards pay, the workmen employed on charcoal-burning generally earn from three to four crowns a day, approximately, and the carters about twice as much for the work of a man and his horse. On the whole charcoal-burning in the forests seems to be a little less profitable to the workmen than tree-felling, especially where natural conditions are not very favourable, and where the industry is relatively new and the population not very familiar with the process of making charcoal. The work is however sufficiently sought after ; a circumstance explained by the fact that for reasons of transport it is limited to the neighbourhood of means of communication, namely the district within one or two Swedish miles of a railway station, and the workmen usually live at home or in the vicinity and are employed on agricultural labour at certain times of the year.



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2. ANNUAIRE INTERNATIONAL DE LÉGISLATION AGRICOLE, 1st Year, 1911, (International Year Book of Agricultural Legislation, 1911). (1912, 1,122 pages, 16mo)	10 —
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Do. 3rd Year, 1913. (1914, 1,114 pages, 16mo)	10 —
Do. 4th Year, 1914 (1915, LXVIII + 1,020 pages, 16mo)	10 —
Do. 5th Year, 1915 (1916, LXXVVI + 1,460 pages, 16mo)	10 —

D. — OTHER PUBLICATIONS.

(a) Publications of the Library.

1. CATALOGUE DE LA BIBLIOTHÈQUE. ANNÉE 1909 (Catalogue of the Library, 1909). (356 pages, 8vo)	Frs. 3 —
2. LISTE DES REVUES ET JOURNAUX RÉGULIÈREMENT REÇUS PAR L'INSTITUT, 1913 (List of Reviews and Papers regularly received by the Institute, 1913). (84 pages, 16mo)	0,50

(b) Publications of the Bureau of Statistics.

(1) Various publications

1. L'ORGANISATION DES SERVICES DE STATISTIQUE AGRICOLE DANS LES DIFFÉRENTS PAYS, Vol. I (The Organization of the Agricultural Statistical Services in the Different Countries, Vol. I). (1910, 446 pages, with tables in addition to the text, 16mo)	4 —
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2. RECUEIL DE COEFFICIENTS POUR LA CONVERSION DES POIDS, MESURES ET MONNAIES AU SYSTÈME MÉTRIQUE DÉCIMAL (Collection of Coefficients for the Conversion of Weights, Measures, and Money Values into the Decimal Metric System). (1914, 84 pages, 32mo)	1 —

(2) Monographs (New Series).

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4. NOTES SUR LES STATISTIQUES DU COMMERCE EXTÉRIEUR DANS LES DIFFÉRENTS PAYS: Publications Statistiques, Territoires, Sortes de Commerce, Provenances et Destinations des Marchandises (Notes on the Statistics of Foreign Trade in the Different Countries: Statistical Publications, Territory, Kinds of Trade, Source and Destination of Goods). (1914, 96 pages, 16mo)	2 —
5. LA RÉPARTITION AGRICOLE DES TERRITOIRES DES DIFFÉRENTS PAYS (Areas under Crops in the Different Countries). (1914, 310 pages, 16mo)	5 —

(3) Other publications.

UMBERTO RICCI: LES BASES THÉORIQUES DE LA STATISTIQUE AGRICOLE INTERNATIONALE (Theoretical Bases of International Agricultural Statistics), (1914, 314 pages, 16mo)	5 —
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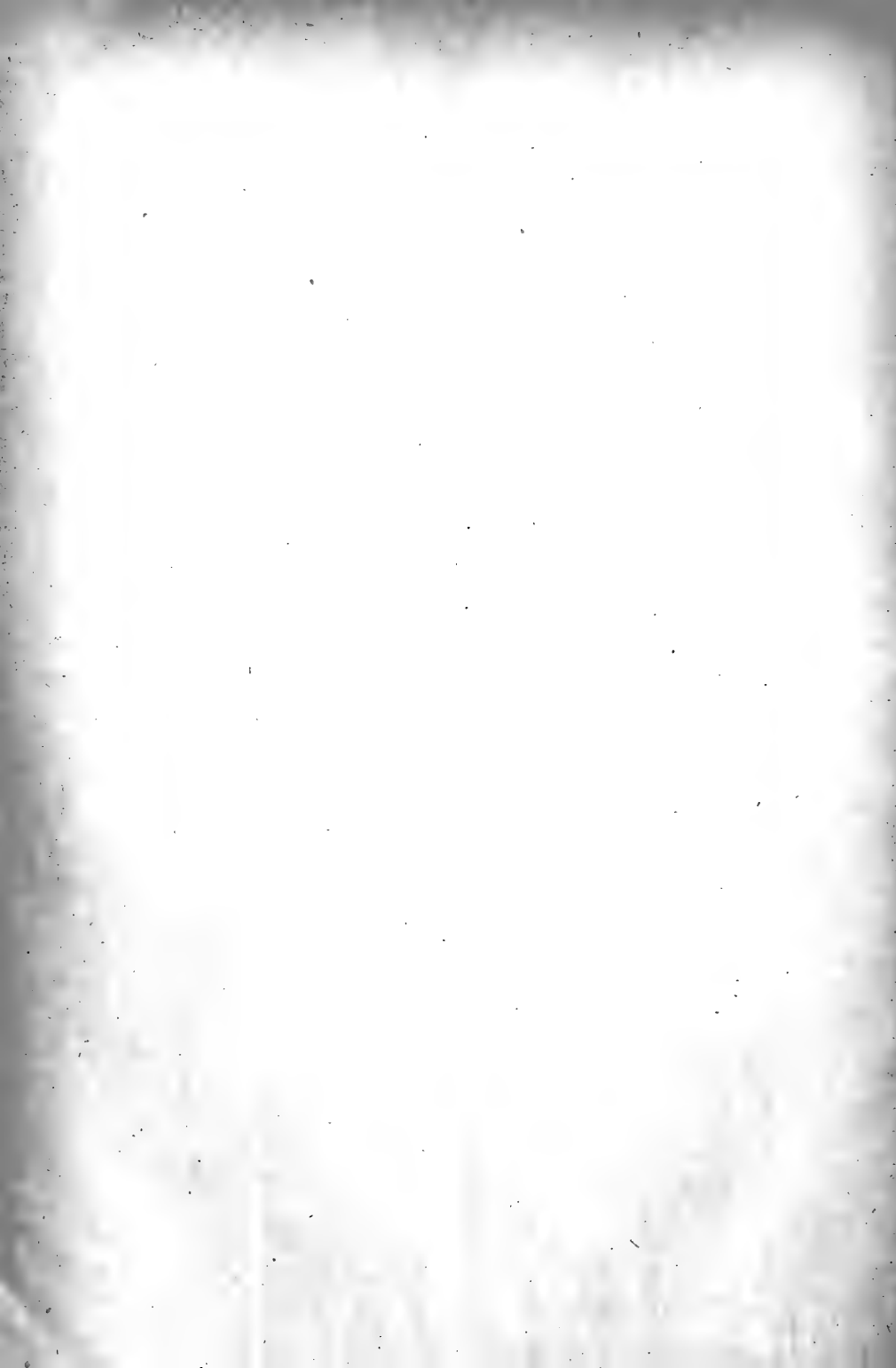
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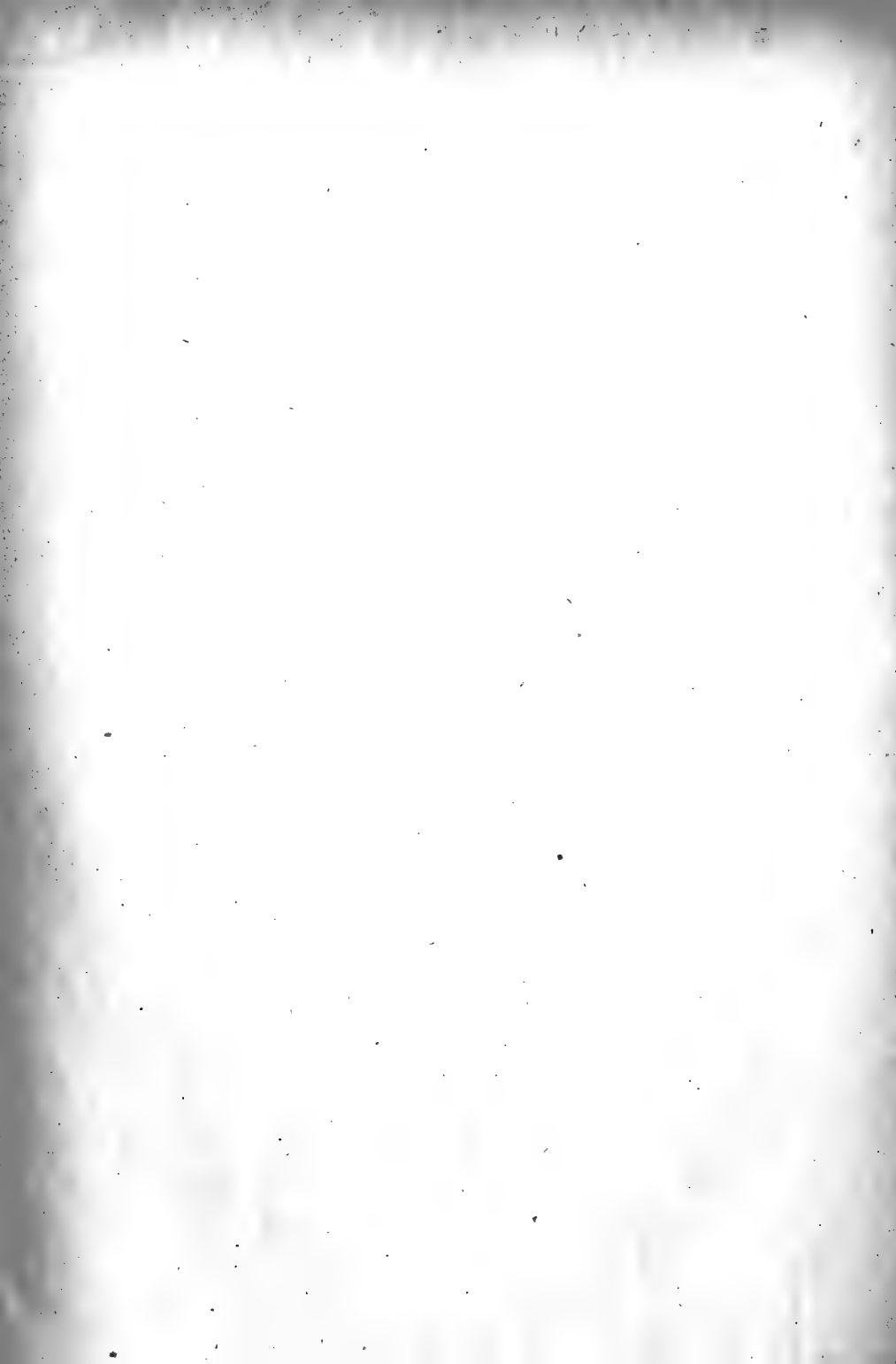
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Part I: Co-operation and Association

SPAIN.

THE FIRST CO-OPERATIVE CHEESE FACTORY.

SOURCES :

LA QUESERÍA MANCHEGA, La industria pecuaria (*The Making of Manchego Cheese. The Live Stock Industry*). Organ of the General Association of Ganaderos (*General Association of Stock Breeders*), 18th year, no. 544, Madrid, 20 February 1917.

§ 1. ANTECEDENTS.

We have already mentioned (1), in speaking of co-operation in Spanish agriculture, the first attempt in Spain to treat milk co-operatively, made by the society called *Quesería Manchega*, which was founded at Infantes in the province of Ciudad Real. This society is concerned with the manufacture of the cheese perhaps most characteristically Spanish, the *manchego* made from sheep's milk.

The *Quesería Manchega* is the first co-operative society for the manufacture of cheese in Spain. It owes its foundation to the campaign in favour of dairy industries undertaken by the *Asociación general de Ganaderos*. A technical teacher of this association happened to be in the district of Infantes, undertook studies and experiments in the manufacture of the local cheese, and pointed out to the sheep farmers the advantages they would derive from the formation of a co-operative society which would improve their processes, make their product more uniform and lessen their costs of manufacture. The idea had no sooner been started than they received it favourably, and after a time of indecision, devoted to the study of the question, they decided to put the plan into practice. They then undertook the work necessary to the installation of the factory and the formation of its staff, relying above all on the support of the *Asociación de Ganaderos*.

The founders of this co-operative society had to conquer initial difficulties of every description, a fact which is comprehensible if it be remembered that the establishment of a business of a kind entirely novel in

(1) *International Review of Agricultural Economics*, March and May 1915.

Spain was in question, and that it was impossible merely to imitate similar enterprises in other countries from which the Spanish districts were distinguished by their particular conditions. Infantes lies moreover in La Mancha, without doubt the most individualized and the least social region in Spain. The obstacles encountered were not only technical but also social.

Among such social difficulties, side by side with those of them which were purely psychological, were some based on economic interests. In fact the greatest resistance to the innovation emanated from the master shepherds of the sheep farmer members of the society. This was due to the fact that previously each master shepherd had made the cheese derived from his flock, receiving certain indemnities at the period of manufacture, that he was the middleman for the sale of the skim milk, and finally that he enjoyed the enormous advantage of being able to instal all his family on the farm, on the pretext that they helped in the manufacture, and they thus were able to dispose of abundant cheese, milk, cream etc. The co-operative society eventually solved these problems without prejudice to the interests of shepherds or employers, either by employing the shepherds, as we shall see, on the processes of manufacture, or by suffering them to sell and derive profit from the skim milk, to provide wood and water for the factory, to transport the cheese to the railways or to pack it.

It was also no easy matter to accustom the cheesemakers to the new processes of manufacture, to cause them to observe standards of cleanliness and order previously unknown, and, above all, to teach them to treat large quantities of milk at one time. Finally however all these difficulties were met by the enthusiasm and conviction of the sheep farmers, whose numbers have continually increased as a consequence of the results obtained by the society.

§ 2. THE WORKING OF THE CO-OPERATIVE SOCIETY.

We have no data as to the organization of this society, and therefore, before we give an account of its activity, we will merely indicate how it has worked.

Two problems had to be solved before it could become active, that of the staff and that of the distribution of expenses and profits. The first of these was undoubtedly the more complicated, for owing to the system of sheep farming locally prevalent, as we shall see, cheesemaking lasts only for from eight-five to eighty-eight days ; and it is therefore naturally impossible to employ workpeople exclusively on this industry since they would thus be idle for nine months of the year. The problem is solved by appointing as master cheesemaker one of the shepherds in the employ of the members and others as assistant cheesemakers, the chosen men always having special skill in the trade. The factory pays these employees during the cheesemaking season, providing substitutes to do their ordinary work as shepherds.

The costs of installation are distributed in equal shares among the members. Ten per cent. of their amount is annually deducted from the society's profits and distributed among the members as interest and redemption quota on the capital of installation. The remaining profits are distributed among them in proportion to the quantity of milk each of them has supplied during the cheesemaking season.

The following are the only figures we have as to the quantities of milk supplied by the members, and refer to 1914.

Members	No. of days during which they supplied milk	Quantity of milk in kilogrammes (1)			
		Total	Daily average	Daily maximum	Daily minimum
No. 1.	67	23,709	334	526	204
No. 2.	60	12,846	214	262	101
No. 3.	88	15,003	170	259	49
No. 4.	87	7,338	84	114	32
No. 5.	76	6,168	81	105	31
Total . . .	88	65,064	739	1,190	49

(1) 1 kilogramme = 2.2 lbs.

The members are obliged to deliver perfectly strained milk and to bring it to the factory in vessels of tinned iron, quite full and hermetically sealed. In order to prevent the adulteration of the milk by the addition of water or other substances it is analysed on its arrival at the factory. For its transport the members have adopted a system of special carts furnished with awnings and so made that the vessels are exposed neither to the sun nor to rain.

For the installation of the factory the premises formerly used for cheesemaking by a member were chosen and were suitably transformed and enlarged. The factory now occupies a fine two-storied building covering an area of 300 square metres (2). On the ground floor are the reception room, the depot, two large rooms used as warehouses, two others used as factories, one for the boiler and stove, and the dwellings of the cheesemakers. On the upper story there are warehouses in which as many as 5,000 cheeses can be stored and which have all the conditions taught by science and experience to be necessary to the preservation of manchego cheese.

The disposition of the cheeses, the accommodation, the ventilation and the economy realized make these premises a true model for establishments of their kind.

(2) 1 square metre = 1.196 square yards.

§ 3. RESULTS OBTAINED.

The following are some data which resume the activity of the co-operative society during the three years which have elapsed since its foundation.

Year	No. of days for which the season lasted	Quantity of milk treated — kilogrammes	Profits realized — pesetas (1)
1914	88	65,064	22,585
1915	87	67,132	24,751
1916	81	51,262	23,300

These figures need some explanation. If the cheesemaking industry be always highly subject to variation it is so especially when the animals furnishing the milk which is its material are not stalled, for milk production is then intimately connected with the extent and quality of the pastures on which they graze. The difference in the quantity of milk treated from one to another of the three years considered should not cause surprise.

Cheese is made in Infantes in the spring, and it should be remembered that in 1915 there was an early and productive spring, whereas that of 1916 was late and little productive.

The difference in the prices realized is similarly explained, being partly due to the varying price of the cheese from one year to another. The co-operative society declares that the fact that the business had entered into a regular course of working contributed to the increase in individual returns obtained in 1916.

A fact which must at first sight cause surprise is that the manufacturing season of the *Quesería Manchega* should last only from eighty-one to eighty-eight days. This is due to local conditions of vegetation and to the difficulty of changing local customs in the matter of sheep farming. In order to lengthen the season and make a larger quantity of cheese it would be necessary to sacrifice the lambs soon after their birth and give fresh and abundant food to the ewes in order that they might yield milk for as long as possible. This is at present impossible in this district where the winter is long and unproductive and the spring very productive, so that the farmers keep the lambs in order to use the abundant pasturage. It is therefore only when the lambs can live without their mothers, that is in spring, that the ewes are milked for the purpose of cheesemaking, the practice being continued until the great heat of July begins to burn the fields. The position could certainly be modified by the intensive cultivation of forage plants and the stalling of the sheep, but this presupposes a complete change in the local system of sheep farming, which could be accomplished only after long study on the part of the farmers.

(1) 1 peseta = $1 \frac{3}{5}$ d. at par.

It is calculated that the flocks belonging to members of the *Quesería Manchega* comprise 6,000 ewes. As regards their yield it should be noted that, as is seen by the table referring to the season of 1914, the members do not all contribute milk on every day for which the factory works.

It may be said, to sum up, that the *Quesería Manchego* has attained to extremely satisfactory results. Since a first attempt at co-operative manufacture is in question, and since there is an increasing demand for its products owing to their superiority over others of the same kind, we may hope that farmers in other parts of Spain will follow the example which has been set them, to their own advantage, that of the industry and that of stock farming.

Already we can cite two other co-operative societies, founded under the auspices of the *Asociación general de Ganaderos* for the exploitation of dairy industries. They are the *Cooperativa Lacianiega* for buttermaking at Villablino in Leon, and the *Lechería cooperativa* established at Saragossa for the sale of milk by the local *Casa de Ganaderos*.

ITALY.

THE DEVELOPMENT OF THE CO-OPERATIVE MOVEMENT IN ITALY ACCORDING TO RECENT STATISTICAL DATA AS TO THE "LEGA NAZIONALE DELLE COOPERATIVE".

SOURCE:

ANNUARIO STATISTICO 1916 DELLE SOCIETÀ COOPERATIVE ESISTENTI IN ITALIA, ESCLUSE QUELLE CHE HANNO PER SCOPO PRINCIPALE L'ESERCIZIO DEL CREDITO (*Statistical Yearbook 1916 of Co-operative Societies in Italy, exclusive of such as have the affording of Credit as their Chief Aim*). Lega Nazionale delle Cooperative Italiane (*National League of Italian Co-operative Societies*) (Milan). Como, Tipografia Cooperativa Comense «A. Bari», 1917.

The Milanese National League of Co-operative Societies had already in 1903 published the first collection to appear in Italy of general statistics as to these societies. It had the support of the Ministry of Agriculture, Industry and Commerce and the assistance of another Milanese society, the *Società Umanitaria*; and the resultant collection was the *Statistica delle Società cooperative italiane esistenti nel 1902* (1). Recently the league has published a Statistical Yearbook of Co-operative Societies for 1916, excluding credit societies. The object of this publication is to "place in relief the importance of the Italian co-operative movement, paying special attention to those forms of co-operation which are recruited from the humblest classes". The book has 1500 pages and is the result of long and intensified labour in collecting and elaborating data. It is indubitably the most complete work of its kind which has yet appeared in Italy (2). It comprises: a) a list of all the existing co-operative societies; b) a

(1) This collection contained three statistical tables and an appendix. Table I. comprised 2199 societies and gave data regarding them having reference to 31 December 1901 and distributed in four groups (consumption, production and labour, credit, various) and according to the district in which they were situated. Of these societies 1714 comprised 567,450 members and owned a total capital of 74,121,046 liras. In Table II 2199 of the same societies reappeared, distributed in twelve classes according to their nature and the object of their social enterprise. Table III. gave 322 co-operative societies of Italians outside Italy. In an appendix there was a list of 335 co-operative societies existing in 1902, the data as to which arrived only after the two first table had been drawn up and printed. There followed the enumeration of eighteen institutions of propaganda and aid, such as the *Lega nazionale* and the district, provincial and local federations, and numerous tables.

(2) Other publications of the same kind have been printed by the offices of the *Direzione generale del Credito e della Previdenza* at the Ministry of Agriculture, Industry and Commerce. One of these, which appeared in 1908, is a mere list, showing the date at which the co-operative societies were formed and giving information as to their paid-up capital. Another which was more complete appeared in 1910, and the yearbook under review refers to this in making the comparisons by which it places in relief the progress of the movement from 1910 to 1915.

collection of tables giving information as to the development of most of the co-operative societies in the sixty-nine provinces of the kingdom, as regards each form of co-operation ; *c*) a collection of tables resuming the situation for each province and district and thus giving a complete picture of the development to which this organization has attained in Italy ; *d*) as an appendix a list of all co-operative societies entered in the registers of the existing prefectorates, federations and consortia. We will here reproduce the principal data contained in this yearbook.

§ I. THE NUMBER OF CO-OPERATIVE SOCIETIES IN THE KINGDOM AND THEIR GEOGRAPHICAL DISTRIBUTION.

It should first be stated that the league's researches concerned the following forms of co-operation : *a*) consumers' societies ; *b*) producers' and labour societies ; *c*) societies for the construction of popular dwellings ; *d*) agricultural societies ; *e*) insurance societies. In the case of the first four of these the aim was the discovery of the following data : 1) date of formation ; 2) number of members ; 3) capital shares, subscribed or paid-up ; 4) amount of the various funds, reserve and other ; 5) amount of business ; 6) profits ; 7) losses. Research of this kind was omitted in the case of the insurance societies owing to the great variety of their working.

There were, in 1915, 7,429 co-operative societies, as against 5,064 in 1910. They were distributed as follows :

	1915	1910	Difference
Co-operative consumption	2408	1756	+ 652
" production and labour	3022	1879	+ 1143
" building	752	379	+ 373
" agriculture	1142	925	+ 217
" insurance.	105	125	-- 20
Total	7429	5064	+ 2365

The co-operative societies of production and labour occur in the year-book in sixteen sections, according to their objects, namely : 1) bakehouses, mills and slaughterhouses ; 2) miners, stoneworkers and cementers ; 3) wood and leather ; 4) ceramics and glass ; 5) fishermen ; 6) copyists and printers ; 7) mechanics and metallurgists ; 8) chemical industries, 9) electrical industries ; 10) clothing and textile industries ; 11) painters and decorators ; 12) journeymen, wheelwrights and navvies ; 13) carters, waggoners ; 14) porters' work ; 15) various ; 16) mixed.

The agricultural societies are divided into three section : 1) agriculture and culture of special crops ; 2) viticulture and the vintners' industry ; 3) dairy farming and cheesemaking.

The figures given show that the number of co-operative societies increased by 2365 between 1910 and 1915. If insurance societies, which di-

minished by twenty (16 per cent.), be excluded, those of every other form are seen to have increased largely — the building societies by 98.4 per cent ; those of production and labour by 60.8 per cent. ; those of consumption by 37.1 per cent. ; and the agricultural societies by 23.4 per cent.

If the co-operative societies be distributed geographically the following comparison between 1915 and 1910 is obtained.

TABLE I. — *Local Distribution of co-operative societies.*

Districts	Co-operative societies									
	Consumption		Agricultural		Production and labour		Building		Insurance	
	1915	1910	1915	1910	1915	1910	1915	1910	1915	1910
Piedmont	277	188	95	84	151	109	33	14	64	75
Liguria	105	68	27	22	183	103	70	48	4	4
Lombardy	704	484	224	140	394	298	144	79	11	16
Venetia	191	143	95	84	322	174	59	27	2	3
Emilia and Romagna . . .	338	157	216	214	886	555	133	61	2	3
Tuscany	358	267	42	38	239	131	127	75	4	3
Marches	111	105	26	22	78	46	10	6	—	—
Umbria	56	38	10	6	31	15	7	2	—	—
Latium	28	16	65	61	226	184	122	48	6	8
Abruzzi and Molise	30	32	21	11	12	6	3	3	2	1
Campania	47	35	53	55	111	63	18	6	2	4
Apulia	40	30	64	43	146	85	13	5	—	—
Basilicata	6	2	10	11	14	8	6	—	—	—
Calabria	42	28	27	20	46	10	2	—	—	—
Sicily	63	53	145	105	159	82	3	1	4	4
Sardinia	12	6	22	9	24	10	2	4	4	4

We should also note the development of agricultural co-operative societies in Sicily, those of production and labour and of building in Emilia and Romagna, those of consumption in Lombardy, etc. Generally speaking societies are most numerous formed in the districts in which agriculture and industry are most developed.

In order to show more clearly the intensity of the co-operative movement in the various districts, we reproduce the following table in which the number of societies is considered in relation to the density of population in each district and the number of its communes.

TABLE II. — *Number of co-operative societies as compared to the population and the communes in each district*

Districts	Population in 1915	No. of Com- munes in 1915	Co-operative Societies			Classification	
			No. of co ope- rative societies	No. of inhabi- tants for each society	No. of Com- munes for each society	according to population	according to number of communes
Piedmont. . .	3,472,958	1,489	620	5,601	2.40	Emilia	Emilia
Liguria. . .	1,244,015	305	389	3,189	0.78	Latum	Tuscany
Lombardy . .	4,931,485	1,907	1,477	3,338	1.28	Liguria	Latum
Venetia. . .	3,665,536	798	669	5,479	1.19	Lombardy	Liguria
Emilia . . .	2,764,133	328	1,575	1,755	0.20	Tuscany	Apulia
Tuscany . . .	2,756,654	287	770	3,580	0.37	Marches	Sicily
Marches . . .	1,116,969	254	225	4,964	1.17	Venetia	Marches
Umbria. . .	703,802	152	104	6,767	1.46	Piedmont	Venetia
Latum . . .	1,361,337	228	447	3,045	0.51	Umbria	Lombardy
Abruzzi . . .	1,459,580	463	68	21,464	6.80	Apulia	Umbria
Campania. . .	3,377,524	623	231	14,622	2.70	Sicily	Piedmont
Apulia . . .	2,201,241	241	263	8,369	0.91	Calabria	Campania
Basilicata. . .	481,953	126	36	13,387	3.50	Basilicata	Basilicata
Calabria . . .	1,446,773	415	117	12,365	3.54	Sardinia	Calabria
Sicily. . . .	3,743,447	362	374	10,009	0.96	Campania	Sardinia
Sardina . . .	870,977	363	64	13,594	5.67	Abruzzi	Abruzzi
All Italy . . .	35,597,784	8,341	7,429	4,791	(1) 1.12		

(1) In these calculations the total number of co-operative societies, as given in the list in the yearbook, is taken into account.

§ 2. THE NUMBER OF MEMBERS.

Of 7,317 co-operative societies of consumption, production and labour, building and agriculture, to which the league addressed itself, only 5,036 or about 70 per cent. supplied the desired data. Moreover the forms were not completely filled up, the number of members being omitted on some, and the amount of business, the capital, the reserve fund, etc. on others.

As regards the members we compare in the following table the number of them in the various kinds of co-operative societies in 1915 and in 1910 :

TABLE III. — *Number of members of co-operative societies.*

Classification of the co-operative societies	Statistics					
	1915			1910		
	No. of societies		No. of members	No. of societies		No. of members
	in existence	to which information refers		in existence	to which information refers	
Consumption	2408	1970	411,358	1764	1623	346,474
Production and labour	3015	1884	257,149	1871	1357	212,387
Building	751	471	91,812	379	315	49,466
Agricultural	1143	711	195,766	926	827	161,115
	7317	5036	956,085	4940	4122	769,442

Thus the membership of these co-operative societies increased altogether between 1910 and 1915 by 186,643. If it be remembered that 2,278 societies furnished no data in 1915 and 718 in 1910, and if it be calculated that each society has about 190 members, it is no exaggeration to place the total membership at 1,300,000, giving an increase of 400,000 since 1910. But the increase arises also from an increase in the number of societies, and therefore we must conclude that there has been no true progress in this sphere.

If finally each kind of co-operative society examined be considered separately, it is seen that while the average membership of a consumers' society fell between 1910 and 1915 from 213 to 208, and that of a production and labour society from 156 to 136, that of a building society rose from 157 to 195 and that of an agricultural society from 195 to 275.

§ 3. THE FINANCIAL BASIS AND THE BUSINESS OF THE SOCIETIES.

The financial basis of the societies appears from the following comparative figures for 1910 and 1915 :

		Paid-up Capital		Reserve & various Funds.	
		1915		1910	
Co-operative consumers' societies .	L.	31,617,205.72		L.	23,868,709
" production and labour societies	"	3,255,547.31		"	31,481,004
" building (1) societies	"	32,257,311.45		"	43,109,237
" agricultural societies	"	21,687,867.42		"	15,687,199
Total	L.	118,817,841.90		L.	114,146,149

(1) The apparent diminution in the assets and reserves of the building societies should be ascribed to the fact that in the yearbook under review the special autonomous institutions for popular dwellings, of which many were formed after 1908, were by an error omitted.

Taken together the co-operative societies of various kinds possess property, paid-up capital and reserves of the average value of 23,593.69 liras and individual members are interested to the extent of 124.28 liras each. The average property of a consumers' co-operative society amounts to 16,049.49 liras, that is 76.86 liras a member; that of a production and labour society to 17,651.12 liras or 129.32 liras a member. The economic resources of other forms of co-operation are more important, as regards the average both for a member and for a society. This is easily explained. We have but to remember that by the law of 1908 as to popular dwellings the building societies were exempted from the provisions of the commercial code as to series of shares, which cannot be of more than 100 liras. In the case of agricultural societies it should be borne in mind that they include the large organizations for the distribution of fertilizers and seeds and those which, like the cheese factories and the collective cellars, treat products.

The turnover of more than 5,000 co-operative societies in 1915 was 648,248,972.82 liras, distributed as follows :

co-operative agricultural societies	liras	211,514,782.82
" production and labour societies	"	163,732,001.14
" consumers' societies	"	156,841,214.87
" building societies	"	116,160,973.99

These figures would give for every consumers' co-operative society an average turnover of 79,614.82 liras. If the fact be recollected that only 1,970 out of 2,408 co-operative societies of this kind supplied information on this point it may be calculated, even if an average turnover of no more than 50,000 liras a year be ascribed to societies which did not respond, that the total annual value of the sales made by consumers' co-operative societies was 180,000,000 liras.

A comparison with the average turnover of each consumers' co-operative society, as shown by the statistics of 1902, reveals an increase of 11,170.58 liras, namely, one from 68,444.34 liras to 79,614.82 liras.

In the case of the production and labour societies this increase is much more marked, being one of 51,495.29 liras which raised the amount from 35,192.21 liras in 1902 to 86,588.10 liras in 1915. This is explained by the fact that all Italian laws facilitating the participation of societies of this kind in public auctions are posterior to 1902, as appears in an article on this subject which we published in our issue for November 1914.

§ 4. PROFITS AND LOSSES.

We will end our short examination of the figures given in the yearbook by showing the profits and losses resulting from these co-operative businesses. The total profits amounted to 11,236,722.18 liras and the total losses to 1,237,985.38 liras : and the net profits were therefore 9,998,736.80

liras. Profits and losses were distributed as follows among the various groups of societies:

Co-operative agricultural societies :

Profits	Liras	1,919,178.22
Losses	"	208,640.14

Net profits . . .	Liras	1,680,538.08
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Co-operative production and labour societies :

Profits	Liras	4,625,237.83
Losses	"	484,105.42

Net profits . . .	Liras	4,141,132.41
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Co-operative consumers' societies :

Profits	Liras	3,471,956.51
Losses	"	368,854.30

Net profits . . .	Liras	3,103,102.21
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Co-operative building societies :

Profits	Liras	1,220,349.62
Losses	"	146,385.52

Net profits . . .	Liras	1,073,964.10
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These figures are the best assurance of the soundness of Italian co-operative enterprise.

SWITZERLAND.

THE PEASANTS' UNION AND PEASANTS' SECRETARIAT IN 1916.

SOURCE:

DIX-NEUVIÈME RAPPORT ANNUEL DU COMITÉ DIRECTEUR DE L'UNION SUISSE DES PAYSANS ET DU SECRETARIAT DES PAYSANS SUISSES, 1916 (*Nineteenth Annual Report of the Managing Committee of the Swiss Union of Peasants and the Secretariat of Swiss Peasants*, 1916). Brougg, Secretariat of Swiss Peasants, 1917, 95 pages.

The nineteenth annual report of the managing committee of the Swiss Union of Peasants and the Secretariat of Swiss Peasants treats of the activity of these two institutions in 1916, shows its results, adducing evidence, and publishes data relative to the finances of the institutions.

We will examine this important report and resume its chief parts, as we have done in the case of reports of earlier years.

A. — SWISS PEASANTS' UNION.

§ 1. SOCIAL POSITION AND ACTIVITY OF THE UNION IN 1916.

In the beginning of 1916 the Swiss Peasants' Union had twenty-eight sections which comprised 197,761 members. During the year one new society adhered to the union and was admitted as forming a new section. This was the *Fédération des sociétés de mise en valeur du lait de la Suisse Centrale* (Federation of the Societies for Realizing the Value of the Milk of Central Switzerland). The union thus acquired 6,451 new members.

a) *Economic Measures for Meeting the Effects of the War.*

In 1916 the union took economic measures with a view to meeting the effects of the war. They were rendered necessary by the circumstances to which the war gave rise in Switzerland and they greatly preoccupied the managing committee, and more especially the Peasants' Secretariat, as well as the Office of Information as to Prices.

As regards the potato supply, the defective potato harvest was a pretext for reproaching the farmers for hoarding seed potatoes for motives of speculation. But the Peasants' Secretariat took its stand on the result of enquiries made by the Office of Information as to Prices, and was able to show that this reproach was unfounded and thus to contribute to calming public opinion. The union undertook to take an inventory of the stocks of pota-

atoes, rather however out of consideration for the public than in the hope of securing new supplies for consumption. The union opposed a proposal to requisition potatoes because it was already the agriculturist's interest to sell his whole available supply and requisition might have influenced the potato crops unfavourably. The principal task of the State is to provide as ample a supply of seeds as possible and to persuade those interested to grow potatoes as extensively as possible. The importance of taking inventories of the available supply is that it prepares the way for the discharge of this task.

The union has been occupied with the reduction of the rate for the extraction of meal, the provision of home-grown cereals as fodder, the guaranteeing of a minimum price for cereals, the utilization of rye for the brewing industry, the prohibition which burdens trade in forage, the price of straw and the supply of straw to the army, the delivery of live stock for butchery to the army, the export of income producing stock and of young pigs, and questions relative to milk and dairy products. The union's action in endeavouring to obtain leave for soldiers belonging to the cheesemaking industry has not been unattended with difficulty but has been crowned with success. The union has also been occupied with the question of obtaining payments for hire for requisitioned horses, and that of suppressing such requisition and causing a return to the method of supplying horses voluntarily. Swiss agriculture is represented at the general meeting of the *Société Suisse de Surveillance Économique* (Swiss Society of Economic Superintendence), or S. S. S., by the national counsellor, M. Chuard and by Dr. Laur. These have taken advantage of opportunities for discussing the needs of agriculture, especially where the acquisition of forage is concerned. Most of the federations of agricultural syndicates have adhered to the S. S. S. This affiliation has given the agricultural syndicates of Romanic Switzerland an opportunity to group themselves unitedly, thus satisfying a long felt want. M. Chuard, member of the union's managing committee, and M. Laur, director of the Swiss Peasants' Secretariat, were the delegates of the Federal Council at the negotiations in Paris with the allied countries as to the vicualling of Switzerland.

- b) *Law as to epizooty policies, application of the law as to insurance against sickness and accidents, the customs tariff and other enterprise.*

In 1915 the proposed revision of the federal law as to the campaign against epizooty, published by the federal council in the message of 15 March 1915, was carefully examined by the union and the secretary. Their conclusions on the subject were resumed by the committee and then transmitted to the commission of the federal Chambers. These began in 1916 to discuss the proposal, and the desires of the union were partially taken into consideration and in a measure respected.

The administrative council of the *Caisse nationale suisse d'assurance en cas d'accidents* (Swiss National Fund for Insurance against Accidents) is concerned with the institution of compulsory insurance and prepara-

tions for voluntary insurance have not yet been begun. During the discussion as to insurance against accidents the union brought forward proposals as to agriculture which were accepted. It proposed finally that the foresters of communes should in particular all be insured.

As regards the revision of commercial treaties, of which one with Italy was denounced immediately before the end of the year, the Peasants' Secretariat continued to prepare for the new agreements to be made. The union also undertook much other business as to the export and import of certain merchandise and relative custom duties, the inspection of wines at the frontier, post office savings banks, the agricultural press, aliens, the federal grant for research as to the productiveness of agriculture, and the federal grants to the federation of the agricultural societies of Romanic Switzerland and in aid of vegetable gardening.

§ 2. OFFICE OF INFORMATION AS TO PRICES.

From the report which this office presented to the Swiss Peasants' Union it appears that its activity had the following forms :

- a) The collection of reports from which extracts were made ;
- b) The publication of a review of the markets ; and the supply of information as to the course of production, the position of the markets and the price of agricultural products ;
- c) The supply of information as to the international market for milk and dairy produce ;
- d) The collection of material for drawing up reports to be sent to the International Institute of Agriculture at Rome.

This office has recently assumed a growing importance which is reflected in all its branches. In 1916 it sent out 11,239 circulars and communications of which 8,725 were in German, 1,823 in French, 309 in Italian and 301 in English. The number of its correspondents has not been diminished in spite of the special circumstances due to the war and the fact that a certain number of them have been called to serve in the army. Correspondents who were obliged definitely to resign have been replaced. 7,183 were in this case.

The especial circumstances due to the war obliged the office to devote particular attention to the statistics as to Swiss crops. The office undertook the following enquiries :

- 1) An enquiry as to modifications in the area on which cereals and potatoes are grown (about 900 correspondents).
 - 2) An enquiry as to the average yield per hectare (1).
 - 3) An enquiry as to the Swiss potato harvest in 1916 (600 correspondents).
- An enquiry, pursued in 1,643 communes, as to the quantity of fruit which could be sold during the autumn of 1916.

· (1) 1 hectare = 2.47 acres.

The average edition of each number of the *Revue des marchés* (Review of the Markets) is of 85,471 copies of which 74,406 are in German and 11,065 in French. In 1915 the average edition was of 79,060 copies. The review has been inserted in ten German and two French agricultural journals.

In 1916 the office had to confine itself to following the course of prices in the interior. The movement of foreign markets has been paralysed by the imposition of maximum prices, the prohibition against export, and in general by circumstances due to the war; and therefore their importance has compared with that of Swiss markets is quite secondary. Nevertheless the abundance of material obliged the editor of the *Revue des marchés* to publish three double numbers in the German edition.

The Office of Information as to Prices also sent the following notices to the journals subscribing to the *Revue des marchés* :

A communication explaining the provisions as to the price of milk and cheese ;

Two communications as to the price of milk for consumption ;

Two communications as to dairy production ;

Eight reports on the market for fruit ;

One publication as to the Swiss cereal and potato harvest ;

One communication as to the placing of agricultural labour by the Swiss labour offices ;

Two reports on the world's cereal harvest in 1916.

As in former years the chief conclusions derived from the statistics as to prices, which were drawn up by the office, were placed at the disposal of the Federal Statistical Office which published them in the Swiss Statistical Yearbook.

In the beginning of the year a complementary report was drawn up as to the valuation of live stock in view of the war tax, and this report was sent by the Peasants' Secretariat to the Federal Department of Finances.

The Office of Information has been occupied by preparations and deliberations with reference to the price of milk and cheese, and has forwarded a large number of pertinent requests.

During the autumn of 1915 an enquiry was undertaken in order to discover the increase in the area planted with cereals and potatoes as compared with 1914. A new enquiry in June 1916 aimed at discovering the modification of such area since 1915. The office received relevant reports from 850 correspondents in all parts of the country. As compared with 1915 the increase in the cultivated area was one of 9.7 per cent for cereals and 13.5 per cent. for potatoes. As compared with 1914 it was 20.8 per cent. for cereals and 32.2 per cent. for potatoes.

An enquiry was also begun as to the average harvest yields per hectare, to provide a basis for the annual estimates of the cereal and potato harvests made by the office. For this enquiry the office made use of former pupils of the schools of agriculture, most of whose societies have promised their co-operation.

For the first time this office made the attempt of conducting an enquiry among producers in order to discover the harvest yield calculated

on the percentage of the average and on the yield per hectare of the potato harvest in 1916. According to the data as to the percentage of the average yield the probable total yield was estimated at 5.9 million quintals (1). If however the data as to the yield per hectare be taken as basis the resultant estimate is 6.1 million quintals. The yield has therefore been estimated in round figures at 6 million quintals.

The activity of the office also included an enquiry made in autumn as to the amount of fruit available for sale. The enquiry was made by communes and the questions were sent to 1,643 communes in the fruit-growing districts of German and Romanic Switzerland. The answers received numbered, 1,494. The quantities available for sale were as follows :

Table apples	200,000	quintals
Cider apples	230,000	"
Early cider pears	44,000	"
Late cider pears	40,000	"
Prunes	2,700	"
Nuts	1,100	"

In the matter of information as to the international market for milk and dairy produce, the quarterly statements were drawn up as previously in spite of difficulties caused by the war. The following organizations lent their aid :

- 1) *Austria* : General Union of Agricultural Co-operative Societies of Austria seconded by the Imperial and Royal Society of Agriculture.
- 2) *Belgium* : International Dairy Federation.
- 3) *Canada and the United States* : Various communications.
- 4) *Denmark* : Royal Society of Agriculture of Denmark.
- 5) *France* : Various local and provincial organizations, individuals.
- 6) *Germany* : Various local and provincial organizations, individuals.
- 7) *Great Britain* : The Board of Agriculture (by sending publications), various organizations.
- 8) *Holland* : General Dairy Union of the Netherlands.
- 9) *Hungary* : Division for the Dairy Industry and Alpine Economy of the Royal Ministry of Agriculture (by sending question-forms and reports), seconded by the National Society of Agriculture of Hungary.
- 10) *Italy* : National Union of Co-operative Dairies, local associations, individuals.
- 11) *Norway* : National Committee of the International Dairy Federation.
- 12) *Sweden* : Secretariat of the Royal Academy of Agriculture.

Quarterly reports were sent as usual to correspondents at home and abroad. The average quarterly edition was of 2,525 German and 1,255 French copies, and 120 extracts in German, 50 in French, 220 in Italian and 150 in English.

(1) 1 quintal = 220 lbs.

The office sent month by month to the International Institute of Agriculture at Rome its customary reports on the condition of the principal crops, of silkworm rearing, of foreign trade in cereals, and of beetroot growing and sugar production, and on the provisional and final estimates of the cereal and potato harvests, wine production, the tobacco harvest, etc.

§ 3. OFFICE OF VALUATION.

The amount of business entrusted during 1916 to the Office of Valuation was so large that it was necessary to engage new experts.

Its activity, as determined by its rules, comprised :

a) The drawing up of reports on investigations and valuations made at the request of individuals in the case of the repurchase of inheritances, successions, acquisitions of real estate, requests for credit and applications for compensation for damage to crops. As in the previous year the largest number of applications for valuations were made by individuals.

b) Investigations and valuations for institutions of credit and the State.

c) Investigations and valuations in cases of expropriation.

d) Co-operation in legal or official valuations.

e) Contributions to scientific research in the matter of agricultural taxation.

The value of the real estate valued in 1916 was as follows :

Real estate valued according to the income it produced	3,266,000 francs
» » » » » its selling value.	1,762,000 »
» » » » » its value for the maintenance of a family	632,000 »

Recourse was also had to the Office of Valuation for information of every description. Besides its simple communications the office made real studies of the most diverse questions, among them those inherent in the law of succession among peasants, the purchase and sale of real estate, the letting of real estate, due services and the land tax.

§ 4. THE OFFICE OF INFORMATION AS TO INSURANCE AGAINST ACCIDENTS AND SICKNESS.

This office has had to supply information as to the foundation of sickness funds and in one case to pronounce on projected by-laws which had already been drawn up. The office has been asked for other information, especially on the subject of insurance against risks of civil liability.

§ 5. THE BUILDING OFFICE.

A new institution, which has certainly rendered notable service to Swiss agriculture, was formed last year, namely the Office of Rural Building.

This office, formed on the model of those existing in Germany, is occupied not only with farm buildings but also with those necessary to the cheesemaking industry. Its activity has the following forms :

- 1) It gives information by word of mouth.
- 2) It answers requests for information addressed to the State.
- 3) It communicates its observations and proposals, following on investigations made on the spot, by writing or by word of mouth.
- 4) It makes sketches and plans.
- 5) It supplies addresses of contractors and those furnishing supplies.
- 6) It makes specifications.
- 7) It undertakes the superintendence of building.
- 8) It verifies building accounts.

The new office was opened on 1 January 1917 and necessary rules and a scale of charges will be drawn up for it.

B. — SECRETARIAT OF SWISS PEASANTS.

§ 1. PROGRAMME OF WORK.

The programme of work laid down by the union for the Secretariat of Swiss Peasants comprised :

- 1) Preparations for the revision of commercial treaties.
- 2) The question of agricultural labour.
- 3) Researches as to the income produced by agriculture.
- 4) Researches by means of double-entry book-keeping.
- 5) Reorganization of the archives and the library.

The work concerned with preparations for the revision of the customs tariff was carried on as far as time allowed.

In the matter of rural labour the secretariat published a fourth part of its work on this subject at the end of 1916. It forms the last chapter of the proposals of the secretariat for the solution of the labour problem and treats of " the reduction of the need for agricultural labour ". There has also been a particularly careful examination of the opportunities there would be for replacing manual agricultural labour by mechanical motive power and for using agricultural implements and machines which would economise labour, the estimated expense of employing motors and machines, as compared with that of human labour, being of course taken as basis.

Researches as to agricultural yield were made by means of single-entry and double-entry agricultural book-keeping. The statistics collec-

ted as a result of book-keeping increase every year in volume and value. By this means it has been possible to undertake new researches, as into modifications of wealth, the influence of grouping lands on the results of agriculture, the relations between the capital invested in real estate and the profit derived from land, etc. The secretariat presented in a very concise form its customary report on the revenue derived from Swiss agriculture in 1915. Care was taken to emphasize the effect of two years of war. In 1916 the secretariat was commissioned by the Swiss Society of the Friends of Apiculture to check and examine the book-keeping of apiculturists. The Office of Valuation of the Swiss Peasant's Union continued to draw on the results of the secretariat's researches in valuing farms. The secretariat also placed the results of its researches at the disposal of the newly founded Office of Rural Buildings. Finally the secretariat furnished much information especially on the subject of taxation for the war tax. On the occasion of the preparations for a revision of the customs tariff it undertook a special enquiry into the revenue derived from Swiss vineyards. The examination of the facts thus collected gave very interesting results, and it was therefore decided to continue these researches

§ 2. OTHER WORK: THE WAR TAX. RELATIONS WITH THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

We have already explained in this Review the results of the researches and proposals of the secretariat as regarded the war tax (1). In 1916 the union continued its effort in the direction of judiciously interpreting the problem of valuing live stock with a view to the war tax.

The secretariat also undertook this year to act as intermediary between the International Institute of Agriculture and Germany, Austria, Hungary, Bulgaria and Turkey.

(1) *International Review of Agricultural Economics*, June 1916, page 40.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

BRITISH INDIA.

THE PROGRESS OF AGRICULTURAL CO-OPERATION IN INDIA IN 1915-1916. —

Report on the Working of the Co-operative Societies' Act in Burma for the year ended 30th June 1916 Rangoon, Government Printing, 1917; *Annual Report on the Working of Co-operative Societies in the United Provinces of Agra and Oudh for the year 1915-1916*, Allahabad, Government Press, 1916; *Report on the Working of the Co-operative Societies Act in the Madras Presidency in 1915-1916*, Madras, Government Press, 1916; *Report on the Working of the Co-operative Societies in Coorg for the year ending 30th June 1916*, Mercara, The Coorg District Press, 1916.

In our issue for April we published an article on the progress of agricultural co-operation in India in 1914-1915. We will here give some data as to the development of co-operation in certain provinces in 1915-1916.

I. BURMA.

During this year co-operation has made marked progress in Burma. After two years during which a certain repression was exercised expansion has been allowed. In the twelve months the total number of co-operative societies has increased by 50 per cent., passing from 1,490 to 2,251; while the total number of members has risen from 39,134 to 51,356, the working capital from Rs. 84.77 lakhs to 106.82 and the management and working expenses from Rs. 1.05 lakhs to Rs. 1.48. The subdivision of over-large unions has raised their number from 112 to 189 and the increase in efficiency has been proportionate.

The number of *Agricultural Credit Societies* passed from 1,252 to 1,685 and that of their members from 30,130 to 36,494. Their working capital, exclusive of advances by the State, rose from Rs. 36,47,302 to Rs. 47,04,933 and their total reserve funds from Rs. 4,39,924 to Rs. 6,34,985. The formation of the Central Reinsurance Society at Mandalay led to an increase in the number of *Cattle Insurance Societies* from 63 to 305 and a proportionate increase in their membership.

There were 46 non-agricultural societies on 30 June 1916 as against 43 on 30 June 1915. The ordinary rate of interest charged on loans by the *Central Banks* was 9 per cent.

The number of agricultural societies per 10,000 of the population was on 30 June 1916 just under three for Burma proper, but 25, 15 and 8, respectively, for the Kyauksè, Shwebo and Pakòkku districts (1). These three districts, in which co-operation was strongest, had, respectively, one agricultural society for every 800, 1520 and 1570 occupied acres, excluding fallows; and Burma proper had one for each 7,100 acres (2).

Since outside money was tight as an effect of the war, members depended more than usual on their societies for credit. Crop prices were moreover generally lower than before the war. As a result the average loan to members of agricultural societies increased from Rs. 132 to Rs. 142. This considerable rise was however less than the average increase per member of owned capital in such societies during the year.

2. UNITED PROVINCES OF AGRA AND OUDH.

The following table shows the general progress of the co-operative movement in the United Provinces in 1915-1916.

Kind of Society	Number of Societies		Number of Members		Working Capital	
	1 July 1915	30 June 1916	1 July 1915	30 June 1916	1 July 1915	30 June 1916
Central	58	58	8,502	5,613	Rs. 61,54,725	Rs. 64,39,838
Agricultural, primary . . .	2,716	2,949	101,511	106,333	49,77,430	51,32,044
Non-agricultural, primary	188	182	6,270	6,918	4,58,773	4,62,969
Total . . .	2,962	3,189	116,283	118,864	1,15,90,928	1,20,34,851

The following table gives the sources of the assets of the primary societies and shows their progress. The figures refer to thousands of rupees.

	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Loans from central societies	14,28	21,82	31,31	40,58	38,06	37,84
" " non-members	1,97	2,41	4,44	4,45	3,10	1,95
" " government	39	24	17	13	10	6
Shares and deposits of members	3,20	4,35	5,29	7,30	9,26	11,00
Profits and reserve funds	1,78	2,07	2,90	3,96	5,44	7,06
Total . . .	21,60	30,89	44,11	56,42	55,96	57,91

(1) In 1912 this proportion was 26 for Germany, 23 for Denmark, 55 for Belgium, 9 for Italy and 8 for France.

(2) Belgium, France, Germany, Denmark and Italy had, respectively, one agricultural society for every 943, 8,226, 3,058, 5,287 and 3,964 cultivated acres.

This table shows that the accumulated savings of peasant members are beginning to assume respectable proportions.

The continuation of the war naturally had a profound effect on co-operation in these provinces. Generally speaking it took the form of vague uneasiness and a half-conscious disinclination to part with money or its equivalent, but in the latter part of the year there was a recovery in this respect and much of the equilibrium disturbed by the war was restored. The cotton crop was small owing to the low prices of the previous year and the rain and floods of September. The other crops did not enable the cultivator to recover any of the ground lost in the two previous years. When the year closed the indebtedness of members to primary societies had increased by Rs. 95,000; and the sum overdue had reached 17.70 lakhs, having increased by Rs. 70,000.

3. MADRAS.

There were 1600 co-operative societies in the Presidency on 30 June 1915 and 1800 on 30 June 1916. The number of new societies formed during the year was 263 but 63 earlier societies were cancelled.

The societies were chiefly active in the matter of affording credit. Generally speaking the work of the year was the further consolidation of the credit movement by investing societies with the right of shareholding and the function of supervision. On 30 June 1916 there were 29 administrative unions of societies — without counting Banking Unions, the Madras Provincial Co-operative Union and the South Arcot District Supervising Union — having 604 societies as their members; while 608 societies were shareholders in Central Banks.

The following table makes clear the position at this date:

Kind of Society	Number of Societies		Number of Members		Working Capital	
	1 July 1915	30 June 1916	1 July 1915	30 June 1916	1 July 1915	30 June 1916
					Rs.	Rs.
Central societies.	30	(1) 11	1,770	1,568	58,73,402	70,70,062
Agricultural societies . .	1,446	1,601	90,088	100,761	64,52,631	74,95,149
Non-agricultural societies	124	157	27,603	34,565	17,63,389	23,23,622
Total . . .	1,600	1,769	119,461	136,894	1,40,89,422	1,68,88,833

(1) Plus 31 unions, the 604 societies affiliated to which have a total capital of Rs. 34,34,593.

At the end of 1915-1916 the indebtedness of members to agricultural societies was Rs. 56,79,837 as against Rs. 50,85,356 at the close of the pre-

vious year. At the former date the sum overdue was Rs. 10,44,010, at the latter Rs. 9,45,369. Proportionately therefore there was a slight improvement.

The amount of loans granted for productive purposes was again higher than in the previous year, being 19.08 lakhs of rupees while the total loans amounted to 33.81 lakhs. The percentage of such total lent for productive purposes was thus 56.43 as against 56.88 in 1914-1915. The number of loans for terms of less than a year had diminished and that of those for terms of more than two years had increased. This is a sign that the societies begin better to understand the distinction between short and long-term loans. The earlier tendency was to look upon all credit operations as made for a year only but renewable in case of need.

4. COORG.

The number of co-operative credit societies in Coorg remained the same as in 1914-1915; but 51 new members were enrolled, the capital rose from Rs. 1,15,500 to Rs. 1,22,168 and the reserve fund from Rs. 23,514 to Rs. 28,554. No loans were taken from outsiders or government, and debentures amounting to Rs. 1,490 were redeemed.

Although the Cattle Insurance Societies are now in the fourth year of their existence the public still view them with some distrust. Briefly the position is as follows: 391 head of cattle are insured; 27 policies have been redeemed to the value of Rs. 278; the reserve fund has risen from Rs. 590 to Rs. 1,030; and the total capital is Rs. 4,590 and is invested in the co-operative credit societies at 8 per cent. interest. Some of the co-operative credit societies have recognized that the payment of dividends to their shareholders does not encourage thrift and that it would be better to use this money to pay premiums for cattle insurance. It is hoped that the new ruling to this effect will add new members to the cattle insurance societies.

GERMANY.

THE FEDERATION OF POLISH CO-OPERATIVE SOCIETIES IN THE PROVINCES OF POSNANIA AND WEST PRUSSIA IN 1914. — *Statistische Korrespondenz*, 24 December 1915, Berlin. Publication of the Royal Statistical Land Office (*Kögl. Statistisches Landesamt*) (1).

This federation represents all the Polish co-operative societies in Posnania and West Prussia. The German co-operative societies in these provinces have their own federations, while the sixteen Polish co-oper-

(1) *Statistisches über den Verband der Erwerbs- und Wirtschaftsgenossenschaften der Provinzen Posen und Westpreussen.*

ative societies of Silesia belong to no federation. This Polish federation was formed in 1871, and was registered and granted the right of revision on 14 July 1892.

At the end of 1914 it had 301 members as follows :

208	co-operative societies	of credit
61	"	" for purchase and sale
22	"	" subdivision
4	"	" consumption
3	"	" the construction of dwellings
3	"	" of trades.

1) of these 208 credit societies 199 had unlimited and only nine limited liability. The latter were formed after the law of 1889, allowing the creation of co-operative societies of such type, was in force.

The co-operative credit societies had in all 129,448 members or an average of 622 for each society. The minimum membership of a society was fifty-one, the maximum 6,554. The trades of members were as follows (1) :

85,848	(68.63 per cent.)	were	agriculturists ;
24,858	(19.87 per cent.)	"	artisans ;
14,391	(11.50 per cent.)	"	traders and members of various trades.

In the agriculturists' group small landowners predominated being represented by 76,776 members. Of that of the artisans more than half — 14,147 — were also landowners.

It is interesting to note that almost all the societies comprised members of different trades, those which were composed of members of only one trade being very rare. This is due to the fact that most of them were situated in towns and included a town and the surrounding villages in their sphere of action.

Their working capital amounted to 320,275,969 marks, being made up as follows :

Share capital	26,280,839	marks
reserve fund	15,155,934	"
individual deposits	271,013,287	"
current accounts in banks	7,825,909	"

320,275,969 marks

(1) The data for two co-operative societies are lacking.

The working capital of individual societies varied enormously, as appears from the following figures :

1	co-operative society had a working capital of		47,664,250	marks
12	" " " " " " " "	more than	5,000,000	"
26	" " " " " " " "	from	5,000,000	"
51	" " " " " " " "	2 to	2,000,000	"
50	" " " " " " " "	1 "	1,000,000	"
50	" " " " " " " "	500,000 "	500,000	"
50	" " " " " " " "	100,000 "	500,000	"
7	" " " " " " " "	less than	100,000	"

The working capital of the limited liability was much larger than that of the unlimited liability societies.

The number of depositors was 234,351, most of them peasants. According to their form the deposits represented short-term liabilities, but in fact most of them were for long terms for the peasants do not withdraw their deposits except to buy land.

The total assets of the 208 co-operative credit societies amounted to 320,275,969 marks

made up as follows :

bills of exchange	280,126,736	"
deposits in banks	15,317,472	"
in hand	3,465,170	"
various assets	21,366,591	"

The Polish co-operative societies usually grant credit, even in the case of mortgage loans and even although the loans are for long terms — three to ten years — in the form of bills of exchange. The co-operative society reserves the right to exact repayment before the term expires, if the debtor do not pay his redemption quotas regularly or if his solvency diminish.

The profits realized amounted to 16,901,249 marks, 16,510,459 marks being interest exacted from debtors. The total expenditure amounted to 14,174,888 marks, 11,829,068 marks being interest paid to depositors and banks and 1,874,324 marks costs of administration. The net profits realized by 202 co-operative societies amounted to 2,988,198 marks of which the share of six societies was 261,836 marks. Of all the net profits, 1,390,149 marks were distributed among the members and the rest paid into the reserve fund.

2) The so-called " Rolnik " (agriculturists') co-operative societies for purchase and sale were first formed in 1894, but began to develop on a solid basis only in 1900.

At the end of 1914 there were in Posnanian and West Prussia seventy Polish co-operative societies for purchase and sale of which sixty-one, having 9,733 members, belong to the Polish federation. All have limited liability. The shares are from 20 to 50 marks, and each of them involves lia-

bility for five times its amount so that the extent of liability incurred by a share varies from 100 to 250 marks. No member may have more than ten shares. Most of the members are agriculturists.

Data as to their working capital were furnished by only fifty-seven of these societies.

The capital held by these societies amounted to 2,025,012 marks including 934,748 marks of paid-up share capital and 1,090,264 marks of reserve fund. The liability of the members extended to 9,926,000 marks. The societies also disposed of capital belonging to outsiders formed by deposits of individuals and credit obtained from co-operative credit societies. Until 1908 private deposits provided the larger part of the working capital. In that year the general meeting passed a resolution that in future the societies should accept fewer deposits from individuals and increase the sum of the credit afforded to them by co-operative credit societies. In consequence the societies for purchase and sale, in order to obtain larger credit from the credit societies, formed with them a species of personal union, admitting to their administrative councils two or three members of the administrative council of a credit society. At the end of 1914 the societies' debt was 12,532,526 marks, one third being deposits of individuals and two thirds on current account with credit societies.

These societies for purchase and sale undertake two kinds of business : they buy for their members goods necessary to agriculture (seeds, manures, forage) ; and they sell agricultural produce on commission. Their business of the latter kind is the more important, the selling being also practised by the co-operative credit societies and the agricultural circles.

Their total turnover amounted to 46,000,000 marks, 28,000,000 marks standing for sales and 18,000,000 marks for purchases.

3) The co-operative societies for subdivision were first formed in 1890. Today there are altogether thirty-one of them and twenty-two belong to the Polish federation.

All the societies for subdivision have limited liability.

Shares are from 100 to 500 marks and each involves liability for from two to five times its amount. The total membership of the societies belonging to the federation was 5,070. The members are mostly agriculturists, large or small proprietors ; but the so-called burgher societies include as members a certain number of traders and artisans and even some professional men.

Their capital amounted to 11,422,092 marks, made up of a share capital of 7,533,970 marks and a reserve fund of 3,888,152 marks. They also receive very large credit from the co-operative credit societies and from the Federal Bank and other Polish and German banks. The deposits of outsiders form a minimum of their working capital. Like the societies for purchase and sale they often enter into a personal union with the co-operative societies in their respective districts.

Their business is of two kinds :

1) They regulate the mortgage debts of landowners ;

2) They buy large properties, divide them into small lots, and resell them to Polish settlers.

The data as to their business in 1914 have not been published.

4) The statistics for 1914 supply figures only as to the membership of the consumers', the trades' and the building societies. The ten co-operative societies of these three kinds comprised 5,811 members.

UNITED STATES.

THE AMERICAN SOCIETY OF EQUITY. — *The Grain Growers' Guide*, Winnipeg, 11 April 1917.

Founded in 1902 at Indianapolis, Indiana, the American Society of Equity is one of a number of kindred bodies working in the central and north-western States for better organization among farmers. From 1902 to 1911 it had tremendous ups and downs — a series of successes and failures.

Its growth has been very rapid in the last four years. The membership is now 100,000. It has 7,146 local unions and is operating in fourteen States — Kentucky, Indiana, Illinois, Wisconsin, Iowa, Minnesota, North Dakota, South Dakota, Nebraska, Wyoming, Montana, Oregon, Washington and Idaho — and has scattered members in other places.

Under the rules of this society a county union comprises five local unions and a State union a minimum of five county unions and 500 members. In Nebraska and Wyoming there are branches of the National Office which is situated at Wausaw in Wisconsin. The subscription for a new member is now \$4 a year, of which 50 cents go to the local union, 15 cents to the county union, 35 cents to the State, 50 cents to the National Office, 50 cents either to the State or to National Equity papers and \$2 to the State for organizing purposes.

So far the work of the American Society of Equity has been mainly educative and has been carried on through meetings of local unions, literature, organizers or otherwise, much as is the educative work of the Grain Growers' Associations in Western Canada. This side of the enterprise seems indeed to have overshadowed its business side, for until the last two years little was done to develop the business organization.

A little more than a year ago the central organization established the American Co-operative Association which is the business organization of the American Society of Equity. It is organized under the Wisconsin State laws. It has already established several branches and transacted a large amount of business. Its first enterprise was to publish *The Organized Farmer* of which the first issue appeared on 14 January 1915.

The large business that has developed has secured for the association the very lowest possible prices and enabled it to sell to its members approximately at the prices charged by wholesalers to retailers. The quality of the goods is guaranteed, the customer being under no obligation to accept them if the quality be not good.

A large quantity of wool is marketed through the association and it goes to the manufacturers directly. This year co-operative canneries and co-operative driers are being established in the Pacific coast States for canning and drying fruit. The stockholders of these co-operative societies are the organized farmers and 90 per cent. of them are members of the American Society of Equity. The total capitalization is \$250,000 of which \$3,000 has been paid up.

The Wisconsin State Union of the American Society of Equity has about 400 local unions and carries on varied work. It buys supplies, and was able last year to secure a profit in spite of the narrow margin on which business is conducted. Coal, flour, fodder, twine, machinery and all kinds of groceries are handled in fifty-pound orders. The price of gluten fodder has thus been reduced to members of the union by nearly 89 a ton. The Wisconsin State Union publishes its own paper, *The Equity News*.

At present the association is organizing the Industrial Co-operative Union which will, as far as possible, deliver goods directly from the producer to the consumer. A company with a capitalization of half a million is being started, half the stock to be sold to producers and half to consumers in Milwaukee. One or two central receiving plants are being established and a number of distributing centres with rigs are being placed in different parts of the city. A consequent reduction in the cost of living is anticipated.

The activities of the society of Equity vary in different States. In Minnesota and Wisconsin the live stock shipping associations have had a great development, at least 200 of them being organized by this society alone. At Farmington in Minnesota a wool warehouse has been established ; and not only is a better price being secured for wool, but many excellent garments are being manufactured very cheaply and returned to the wool consigners at far lower prices than those for which they could buy them elsewhere. In North Dakota the chief business has been in grain, and a fight steadily waged for some time with the Minneapolis Chamber of commerce has finally resulted in the establishment of a separate exchange in St. Paul. Other States have dealt with special phases of the marketing and buying problem.

NOTICES RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

GREECE.

KALITSUNAKIS (Dr. Jur. D. E.): *Die genossenschaftliche Bewegung in Griechenland* (The Co-operative Movement in Greece). *Balkan-Review*, No. 4-5, Year III, 1916.

In 1911 a new department, called the Ministry of National Economy, was created in Greece, and the State has since intervened more importantly than before in the country's economic life. In 1914 this department proposed a law as to co-operative societies which has had force since 24 January 1915 and on which the article here cited bears.

In drawing up the law the Greek legislature was influenced by the character of the co-operative movement in Germany, and therefore the measure presents a combination of Raiffeisen and Schulze-Delitsch principles and reproduces almost literally many provisions of the German law of 1889 on co-operative purchase and labour (*Erwerbs- und Wirtschafts genossenschaften*). But to some extent the Greek legislature took into account the special circumstances of the country, and thus there are in the law certain deviations from the line traced by German principles.

The following are the characteristic features of the Greek law :

1) In the case of co-operative societies of every kind, whether credit, agricultural, industrial or other, the law allows their formation on the principle of either limited or unlimited liability. The form selected has merely to be noted in the by-laws (article 22). As is known the rural co-operative societies, especially those which are credit societies, almost all have unlimited liability.

2) In the matter of the territorial sphere of an association the Greek law adopts the principles of Raiffeisen, in that of the admission of members those of Schulze-Delitsch : thus the sphere of co-operative action is limited to a village or a commune, and the admission of members depends on the obligatory purchase of shares. The members of an unlimited liability society are obliged to pay the amount of one share, but the by-laws of a limited liability society may prescribe the subscription of two or even more shares (article 20).

3) Articles 14 to 67 and 68 of the law prescribe the obligatory formation of a reserve fund in accordance with Raiffeisen principles. Ten per cent. of the net profits are paid into the reserve fund annually, and such payments cannot be interrupted until this fund becomes equal to the share capital. The reserve fund serves to cover eventual losses and may not be used as working capital. It is invested in State securities. It is considered

to belong to the co-operative society in its capacity as a legal person and not to be the collective property of the members ; and therefore in case of liquidation it is not distributed to the members but is deposited in the Central Fund which remits it to any new co-operative society formed in the same place and with the same objects.

Besides this regular reserve fund the law allows the creation of extraordinary reserve funds, which have however a quite different character being employable as working capital. They may be distributed among the members if the general meeting so decide.

4) The organs of a co-operative society are the council of administration, the council of vigilance and the general meeting. The functions of the two former are honorary, only their technical officials being paid. In the general meeting of an unlimited liability society all the members have equal rights ; in that of a limited liability society the members are divided into two classes, those having one and those having two votes.

5) Articles 55 and 56 provide for the liquidation of societies. Liquidation takes place :

- a) in response to a resolution passed by the general meeting ;
- b) when a judgement on a legal point has to be executed ;
- c) in case of failure.

When a liquidation is necessary liquidators are elected who are responsible for the conduct of the society's business until the liquidation has been effected.

The law provides finally that wherever a case is not covered by its dispositions those of the codes of commerce and civil procedure shall be followed.

Up to 31 December 1915 eighty-seven co-operative societies were created under the provisions of this law, namely sixty-one rural credit societies, eighteen rural producers' societies which included eleven for the production of dried currants, and eight rural and urban labour societies.

Of these eighty-seven societies only six had unlimited while eighty-one had limited liability.

UNITED STATES.

1. BEXELL (J. A.) and KERR (W. H.) : BUSINESS PRACTICE AND ACCOUNTS FOR COOPERATIVE STORES. *U. S. Dept. Agr. Bull.* 381 (1916), pp. 56, pl. 1).

The authors have outlined a simple and adequate system of records for co-operative retail stores and pointed out fundamental business methods that must be observed to insure success. They have discussed this subject under the headings of corporate records, statements and reports, operating records, auditing, and office equipment. The bulletin outlines in detail the necessary records and statements essential to the proper conducting of stores under a co-operative scheme and gives a large number of model forms.

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2. HUMPHRY (J. R.) and KERR (W. H.): A SYSTEM OF ACCOUNTS FOR LIVE-STOCK SHIPPING ASSOCIATIONS. (*U. S. Dept. Agr. Bull.* 403 (1916), pp. 14).

In this bulletin types of shipping agencies and methods of financing shipping associations are described, together with methods of keeping the accounts of such associations. The authors have outlined a system in which the only books of record required are a cash journal, consisting of a multi-column cash book and a journal combined, with provision for a detailed account of sales of supplies, and an ordinary form of loose-leaf ledger. They also describe other forms that may be used, such as the shipping record envelopes, members' receipts, members' account sales, manifests, sales tickets, and cash receipts. Sample forms are included in the bulletin.

* * *

3. BEXEL, (J. A.), MACPHERSON (H.) and KERR (W. H.): A SURVEY OF TYPICAL CO-OPERATIVE STORES IN THE UNITED STATES. (*U. S. Dept. Agr. Bul.* 394 (1916), pp. 32, pls. 2).

Data collected from sixty stores in ten States by the Office of Markets and Rural Organization in co-operation with the Oregon Agricultural College are reported and discussed.

"The figures collected in this survey bring out the conclusion that the majority of the co-operative stores established are unsuccessful in achieving their main object — saving on purchases to members and a reduction of the high cost of living. This conclusion is borne out by the supplementary notes collected from managers who could not apply statistics, and by notes on interviews with leaders who are acquainted with the store movement in whole sections which could not be covered in detail. But that there is one real service which the co-operative stores have performed seems to have been demonstrated again and again. Even in cases where stores have failed absolutely and gone into bankruptcy they have frequently been responsible for the introduction of improved business methods in the towns where they were established. They have had the effect of stimulating competition. In cases where the merchants have competed keenly against the co-operative store they have been compelled to adopt more efficient business methods. This has resulted in lower prices to every consumer in the locality and frequently in better prices to farmers on produce".

The authors believe that the conditions necessary for success are good leadership, capable management, favourable environment, and adequate legal safeguards, and that a lack of these is generally the cause of failure. A number of statistical tables, setting forth the various facts concerning the stores from which this survey was made, are included in the bulletin.

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4. GALPIN (C. J.) and SAWTELLE (D. W.) : RURAL CLUBS IN WISCONSIN (*Wisconsin Sta Bul.* 271 (1916) pp. 58, figs. 22).

The authors believe that to live on good terms with others is a part of modern farming, as truly as to know how to farm, and that the higher level of efficiency is reached in the science and art of local agriculture when families know one another well and meet frequently. A strong circulation of ideas and impulses is deemed necessary to counteract discontent and the temptation to sell farms and move away from rural districts.

The authors state that about one fifth of the farmers in Wisconsin are members of various rural clubs or attend their meetings. They have divided the rural clubs into four typical groups each of which they illustrate by typical examples. The four groups are those of the farmers' family club, the farm men's club, the farm women's club, and the young folks' club.

Part II: Insurance and Thrift

UNITED STATES

THE GENERAL CONDITIONS OF INSURANCE AGAINST FIRE AND THE DEVELOPMENT OF MUTUAL INSURANCE.

OFFICIAL SOURCES:

VALGREN (V. N.), Investigator in Agricultural Insurance Office of Markets and Rural Organization: — Farmers' Mutual Fire Insurance. Washington, Government Printing Office, 1917.

POTTS (Rufus M.): Forty-Seventh Annual Insurance Report of the Insurance Superintendent of the State of Illinois. Farm Mutual Insurance Companies.

OTHER SOURCES:

WENTWORTH (Franklin H.), Secretary-Treasurer National Fire Protection Association: American Fire Waste and its Prevention, in *The Annals of the American Academy of Political and Social Science*, Vol. LXX, No. 159, March 1917, Concord, New Hampshire.

RIEGEL (Robert), Instructor in Insurance, Wharton School of Finance and Commerce, University of Pennsylvania: Rate-making Organizations in Fire Insurance. Ibid:

RIEGEL (Robert): Problems of Fire Insurance Rate-making. Ibid:

BLANCHARD (Ralph H.), Instructor in Insurance, Wharton School of Finance and Commerce, University of Pennsylvania: Insurance of the Catastrophe Hazard. Ibid:

§ I. SOME ASPECTS OF INSURANCE AGAINST FIRE IN THE UNITED STATES.

Statistics show that in the United States and Canada the fire waste is roughly ten times as much per person as in Europe. This contrast is partly explained by the facts that there are more people in Europe upon whom to calculate this percentage and that more buildings in America are made of wood. The annual American fire waste averages \$3 a dollar a head of the population, and the United States government in its reports adds to this the cost of maintaining fire departments which is as much more. The total loss by fire in the United States and Canada for the last ten years has averaged \$230,000,000 a year.

a) *Fire Insurance and State Control.*

The problem of the organ which shall fix insurance rates has found in the United States two opposite and irreconcilable solutions: one presupposes that competition secures the most equitable tariff, the other that it is reached by an agreement among companies.

In New York city a rate agreement was made in 1821, but by 1825 new companies had so increased competition that it was abandoned. In 1826 an association was formed for similar purposes but it had ceased to exist in 1843. In 1866 an effort of far greater scope brought about the formation of the National Board of Fire Underwriters, composed of seventy-five companies whose common purpose was to "establish and maintain as far as practicable a system of uniform rates of premium". A rating bureau was organized by the National Board, and the United States divided it into six territorial departments for the purpose of rate-making. In 1868 thirty-seven leading companies entered into the "Chicago Compact", pledging themselves to remove any local agent upon his second conviction for violating National Board rates. But it was officially although reluctantly acknowledged that there was no general adherence to rates and they were suspended. In 1877 the rate-making function of the board was abandoned in favour of local and sectional boards of fire underwriters, which have continued to be important factors until the present time. Practically the whole country is now organized by a group of associations and bureaus. The objects of these associations are: 1) to provide a common organization which efficiently performs for all companies work each of them once performed individually, and thus economizes labour and expense; 2) to establish uniform rates of commission to brokers and agents; 3) to form a protective alliance against sudden changes in the insurance law of States; 4) to standardize rates and rating systems, preventing discrimination between localities, classes of risks, kinds of policies and persons.

There was a certain public suspicion of these underwriters' associations on the ground that they constituted trusts detrimental to the general interest. Hence arose the *anti-trust statutes* and *anti-compact laws* in many States which are inspired by the principle that insurance rates should be fixed by competition.

The universal effect of periods of open competition, wherever and whenever they have occurred, has been a cutting of rates to a point below the actual cost of the indemnity. Unrestrained competition leads ultimately to monopoly through the elimination of the weak or unfortunate and the survival of a few large and strong companies. Since it allows two different companies to quote different rates on the same risk laws have been passed requiring corporations doing business in a State to file a schedule of rates with a State authority and requiring that there be uniform premiums for all risks written under the same schedule. Such a law was passed in Arkansas in 1913. A second type of law required the filing of rates with the superintendent of insurance and invested him with power to order excessive, unreasonable or inadequate rates to be changed. Such a law was passed in

Kansas in 1909. Legislation of a more radical type, exemplified by the law passed in Texas in 1910, created State commissions having power actually to fix in the first instance the rates to be charged by companies. A similar Act passed in Kentucky in 1912 caused considerable difficulty, forty-seven companies having actually left the State in consequence of it in March 1914.

The following benefits are claimed to be derived from a State rating law :

1. The elimination of discrimination favouring the large insurer and favouring certain localities and classes of risks.

2. A reduction of insurance rates :

- a) by improvements in cities causing reductions in their key rates ;

- b) by improvements in individual risks ;

- c) by the removal of unnecessary and the reduction of necessary hazards,

- d) by the elimination of faults of management ;

- e) by preventing insurance companies from advancing rates when temporary conditions and bad losses in certain localities make them wish to do so.

3. Stability of rates and schedules and accessibility of information regarding the process of ratemaking.

The principal advantages of the State rating Acts were that they fully admitted the necessity of having but one rate for each risk, thereby endeavouring to secure the same result as the associations of underwriters.

In 1911 the State of New York passed a law under which the companies were allowed still to fix rates by agreement, under the regulation of the State. In 1913 North Carolina and West Virginia passed similar laws. Finally a committee of the National Convention of Insurance Commissioners in April 1915 submitted for adoption throughout the United States four model Acts, as follows :

1. An Act like the New York law already described, providing for the supervision and examination of rating bureaus ;

2. An Act prohibiting discrimination in rates and any stipulation that the whole or part of a risk be placed with certain companies ;

3. An Act requiring companies to maintain and co-operate with a public rating bureau, sharing its expenses equitably and having an equal voice as to its actions.

4. An Act requiring a written survey of each risk specifically rated by schedule.

A report to the National Convention in April 1915 indicated that the first of these laws was in existence before 1915 in six States and was enacted in three additional States by April 1915. Laws forbidding discrimination were in force before 1915 in ten States and three additional Acts of this nature were passed by April 1915. Act 3 had been passed in two States by April 1915. Massachusetts and North Carolina laws provide for a general review of all rates but only give power to make recommendations. Kansas, Kentucky and Minnesota have laws authorizing the insurance companies to review rates made by companies and order the proper rates to be substi-

tuted for them. Missouri authorizes the insurance superintendent to order rate reductions which will insure only a reasonable profit to the companies. Oklahoma delegates similar power to an insurance board. New Hampshire has long had a law enabling the insurance commissioner to review and fix rates. The following States and territories have no legislation of the types considered: Alaska, California, Canal Zone, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Illinois, Indiana, Maine, Maryland, Nevada, New Mexico, North Dakota, Ohio, Philippines, Porto Rico, Rhode Island, Utah, Vermont, Virginia, Wyoming.

The tendency during the past two years has been unmistakably towards a type of legislation which recognizes the difficulties of State rate-making and, on the other hand, appreciates the right of the public to be protected from arbitrary action and unnecessary inequity. The advantages of a statute combining the principles of private co-operation and public regulation may be shown by the results of the law passed in New York in 1911, after a very thorough investigation of fire insurance conditions, whereby this State became the leader in this kind of fire insurance legislation. Four rate-making associations now operate in New York State and have done so for some time. One of the results of delegating the power of supervision to the superintendent of insurance was to bring about co-operation and harmony of action among these associations. The first initiative came from the State but the associations brought about many reforms on their own initiative. Uniform rules, practices and forms were adopted and promulgated. Non-uniformity of rates disappeared with diversity of rules. A science of fire rating was developed, one of its most important phases being the supersession of "judgement rating" by "schedule rating". Dwelling and farm schedules have been devised with the resultant advantages of schedule rating, especially the possibility of detecting and avoiding discrimination. To some degree also the law has satisfied the nearly universal desire for lower rates. During the first few years the orders to remove unfair discriminations resulted in a saving in premiums estimated at \$1,000,000 a year.

b) Methods of Determining Rates.

Risks to be covered by fire insurance were first rated by means of a classification of buildings -- for some time the only property insured -- into groups, each risk included in a group taking its rate. With an increased appreciation of the multitude of differences in the construction, use and situation of buildings and the nature and quality of substances, the classifications necessarily multiplied. It became impossible to obtain enough like risks to form a valid class; there was the difficulty of classifying a building having diverse occupancies and congregated risks; an ever-growing "miscellaneous" group of heterogeneous and unrelated risks developed. The only groups which could be successfully rated were churches and dwelling-houses as to which there is a sufficient collection of data.

From 1868 onwards the schedule system was substituted in the United States for that of classification. This system attempts an analysis of fire

hazard into its component parts. The schedule gives a list of the conditions for which an inspector should look, diminishing the probability that he will overlook defects or good points. A combination of judgements was obtained in determining the charges to be made for the particular risks distinguished by the analysis. It might at least be expected that a smaller percentage of error would be present under such conditions than in the unaided estimate of any individual inspector.

The modern era of schedule rating may be said to begin with the publication in 1893 of the *Universal Mercantile Schedule*, an attempt to devise a system of rating universally applicable and to render special schedules unnecessary. This schedule starts from a basis rate for a "standard" building in a "standard" city, such rate being 25 cents for every \$100 of insurance. To decide what the rate should be on a standard building in a given city this city is compared with the standard city. In order to find the rate for a given building its construction, occupancy and exposure must also be considered. The second important universal schedule, the *Analytic*, presented a better formulated analysis of hazard. But both these schedules made practically no attempt to justify their results by statistics. An insistent demand at the Annual Convention of Insurance Commissioners that such neglect should be remedied resulted in the establishment by the National Board of Fire Underwriters of an actuarial bureau to ascertain fire loss costs. Subsequently two new schedules were devised, one combining some features of the Universal and the Analytic, the other designed to make use of the data collected by the foresaid actuarial bureau. The former, the *L. & L. Schedule*, or Larter and Lemmon Rating System, has in particular two new features: it lays stress on the "burning degree" or degree of inflammability and on the influence of floor resistance. The *E. G. R. Schedule*, or Experience Grading and Rating Schedule, is an attempt to devise a method of ascertaining the total cost of insuring risks of varying character by an analysis of statistics of past experience. The method of procedure is: 1) to ascertain the ratio of losses, expenses and a fair profit, to the insurance written on all risks in the United States; 2) to obtain a similar ratio for the average risk in each particular State; 3) to ascertain the average United States' rate on a risk of a specific class. The danger of inadequate data as a basis for premiums is thus immensely reduced, while the risks in every State are rated in accordance with its particular experience. The E. G. R. schedule is plainly an endeavour, however successful or unsuccessful its results may be, to meet fairly the objections of critics to existing methods of measuring hazard.

A few words may be said as to the collection of the data necessary to its application. On 1 January 1915 a standard classification was adopted and the actuarial bureau of the National Board of Fire Underwriters began a collection of experience from almost 190 companies, nearly one third of which were mutual societies and not members of the National Board. The board's work has been much furthered by the co-operation of the insurance departments of a number of States. In May 1916, 236 companies were co-operating in the work, including 125 National Board companies,

52 mutual companies, and 59 other companies. In 1915 about 650,000 loss reports were received and at the present rate there will be on file at the end of 1916 over a million reports of losses sustained and paid by members of the bureau.

§ 2. FARMERS' MUTUAL FIRE INSURANCE.

One of the most successful forms of rural co-operation in the United States is that of farmers' mutual fire insurance. Up to the present time however it has received but little general publicity. Few men, even among the farmers themselves, are aware of its importance. Many will be surprised therefore to learn that there are at present nearly 2,000 farmers' mutual fire insurance companies in the United States. These companies carry a total amount of insurance exceeding \$ 5,250,000,000. The property on which this insurance is written is valued at more than \$ 6,700,000,000 which is more than two fifths of the value of the insurable property in the forty-eight States.

While mutual fire insurance in the United States dates from 1752, the first farmers' mutual fire insurance company came into existence about 1825. New England and the Middle Atlantic States saw the first attempts at this form of co-operation by farmers. It was soon shown that a considerable saving in the cost of fire insurance could be effected by its means and the movement spread fairly rapidly from one community to another. By the middle of the century a considerable number of farmers' companies of this kind were in existence, and more than half those now existing were organized before 1850.

Most of these companies were incorporated under special charters and left to do business practically without guidance or supervision. Unfortunately these co-called "farmers' mutuals" in some instances failed to limit themselves to the segregated risks of moderate value to which their volume of business and their methods adapted them. Hence their record in this period is by no means one of uniform success. In spite of this handicap the movement continued to extend westwards and southwards from the place of its origin. By 1875 there were about 400 farmers' mutuals and by 1900 there were at least 1700 of them. Their present number exceeds 1950.

a) Legislation.

The rapid extension of insurance on this plan after 1850 was due in no small measure to favourable legislation. The first farmers' mutual insurance law was passed by the State of New York in 1857. This law provided that twenty-five or more persons residing in any township of the State and owning a total of \$ 50,000 worth of property which they desired to insure might form themselves into a mutual insurance company. They were allowed to insure only buildings and the goods contained therein. They could insure no city or village property and could not accept risks outside the

borders of the home township. They could write insurance against loss or damage by fire only. This law, though evidently too restrictive in its provisions regarding business territory and the risks that might be assumed, appears to have become the model for similar laws in the north central States generally, and for some twelve other States situated further south or west.

The early New York law was repealed in 1862 and it was not until 1879 that a second law, somewhat more liberal in its provisions, was enacted. In the meantime Wisconsin, Illinois, Michigan, Iowa, Minnesota, Ohio and Indiana had enacted farmers' mutual fire insurance laws. These laws and also the second New York law generally permitted that a number of contiguous townships or an entire county should form a business territory. All kinds of farm property might be insured and the lightning hazard as well as that of fire might be assumed. Except the Indiana law they differed from the New York law of 1879 in that they placed the companies thus organized under the supervision of the respective State insurance departments. This step was not taken by New York until 1909. By 1890 practically every State in the Middle West and several of those in the South had a farmers' mutual fire insurance law.

The present laws upon this subject, while similar in many respects, are by no means equally complete or practical in all their provisions. It may be said that at present twenty-five States have fairly satisfactory farmers' mutual fire insurance laws. Several other States have scattered provisions in their laws as to fire insurance in general which apply particularly to farmers' mutual companies. In a few States, having laws which make no special reference to farmers' insurance organizations, the companies operate either under special charters or under laws applying to all classes of mutual fire insurance companies. In six States, all in the South or South-West, no record of companies of this kind has been found.

The older farmers' mutual insurance laws have in practically every instance been variously amended. The trend of these amendments has been to enlarge the business territory permitted and give more scope to the activities of the companies. In several instances they are allowed to operate in an entire State. As a rule however the laws prescribe for them territories varying from one to five counties. While many of the companies have availed themselves of the provisions allowing such enlargement, the great majority still operate in a single country while a few still confine themselves to a single township.

There has been a growing tendency, especially in the Southern States, to allow the farmers' mutual societies to include windstorm among the hazards they assume. Mr. V. N. Valgren states in the paper cited at the beginning of this article that the practice is not to be recommended. "Each group of farm buildings, and to a considerable extent each building within the group, is a distinct and separate risk with respect to the fire and lightning hazards, but this is not true with respect to the windstorm hazard... The practice which is rapidly gaining favour in the Middle West of operating a State-wide windstorm insurance company through the co-operative efforts

of the local fire insurance companies would add much to the stability and safety of the farmers' mutual organizations in any State where combined protection is now offered by the local mutuals."

b) Importance

The total amount of insurance carried by the 1,947 farmers' mutual fire insurance companies in existence on 1 January 1915, the latest date for which relatively complete statistics are at hand, was approximately \$5,264,119,000. The total amount paid for losses during 1914 was \$10,766,651 and the expenses of operation were \$3,138,640, making the total cost of this insurance \$13,905,300. From these figures it may be seen that the average cost per \$ 100 of insurance in all these companies was about 26 cents.

The farmers' mutual companies almost without exception limit the amount of the insurance written to either three fourths or two thirds of the actual value of the property. A reasonable allowance for this fact shows the total value of the farm property insured by these companies to be approximately \$6,736,000,000. The total value of all insurable farm property in the forty-eight States on 1 January 1915 was, as nearly as can be estimated, \$15,886,000,000. This would indicate that nearly 42 $\frac{1}{2}$ per cent. of all insurable farm property in the forty-eight States of the Union was insured in the farmers' mutual fire insurance companies.

The following table shows the geographical distribution of these companies, the total amount of their insurance in force on 1 January 1915, and the average cost of \$100 of insurance during 1914:

Geographical Division	Number of Mutual Companies on 1 January 1915	Insured value on 1 January 1915	Average cost of \$ 100 of insurance in 1914
		\$	cents.
New England	309	1,085,240,088	32
Middle Atlantic	86	149,861,450	38
East North Central	746	1,993,905,389	24
West North Central	571	1,604,003,112	22
South Atlantic	94	226,750,703	35
East South Central	48	50,732,189	44
West South Central	37	29,564,039	39
Mountain	23	13,469,704	28
Pacific	33	110,532,259	33
Total	1,947	5,264,118,993	(average) 26

Thus the average cost of insurance varies from 22 to 44 cents for \$ 100 in the different divisions. For each State in which the total insurance amounted to \$ 1,000,000 or more the average cost per \$ 100 of the insurance

in 1914 varied from 70 cents (Georgia) to 12 cents (Utah). The fact that, especially in the Southern States, some of these average costs are for insurance against windstorms as well as against fire and lightning should be remembered. About 15 per cent. of all the farmers' mutual companies in the country write policies giving the combined protection. This fact makes the average of 26 cents per \$100 for the country as a whole all the more remarkable when compared with the rates which farmers without mutual organizations are obliged to pay.

c) The Advantages and the Scope of Farmers' Mutual Fire Insurance.

The total annual saving to farmers by reason of the relatively low insurance cost in their mutual companies amounts to a very considerable sum. No close estimate of this saving has been attempted, since no special effort has been made to collect lists of commercial rates for farm risks in the different States and in the various sections of these States.

It may be safely said however that in a number of the States where farmers' mutual insurance is most highly developed, the average cost of insurance for all these companies in the State has fallen well below one half of the rates quoted by commercial businesses or the so-called bureau rates.

The saving of the farmers' mutual companies in insurance cost may be credited mainly to two sources. First the necessary working expenses of large commercial companies for commissions, salaries, dividends, taxes, rents, rating charges, legal assistance, etc. have been either greatly reduced or entirely eliminated. Secondly the losses experienced have been fewer because the moral hazard has been practically removed by precautions against over-insurance on the part of the farmers' companies, and the different attitude of the insured towards a company consisting of friends and neighbours than towards a large business company having, perhaps, its premises in a distant town.

The full possibilities of direct and conscious co-operation in farmers' mutual fire insurance have not yet been realized. At least one group of mutual companies in the United States has far outstripped the farmers in effectively co-operating for the prevention of losses. This group is known as the factory mutuals and consists of nineteen companies, mainly in New England. They insure only large factories and have so far limited themselves to the district east of the Mississippi River. Not only have they secured severally the effective co-operation of their members for the prevention of losses but they have freely and generously co-operated with each other. They have for years maintained a joint bureau in Boston for the advancement of the science of safe construction and the frequent and thorough inspection of their risks. The oldest of these companies was organized in 1835. During the first ten years of its existence its average cost for \$100 of insurance was 84 cents. This average for the last ten years has fallen below 6 cents, which means that the cost of insurance in this company has been reduced to approximately 7 per cent. of what it was three quarters of a century ago.

It is believed that what has been done by the factory mutuals can be

accomplished, at least in some measure, by other classes of mutual companies. The possibilities of further reducing the cost of insurance by the application to losses by fire of what is called "the principle of stoppage at the source" are believed to be great.

A group of New England companies have reduced their losses on country risks materially in the last few years by means of a system of inspection. Companies and groups of companies elsewhere have recently begun enterprises of this kind. All risks should be thoroughly inspected at least every second or third year by a well qualified representative of the insuring company, and its members duly warned against any dangerous conditions or practices discovered. If necessary continuance in the company should be made conditional on the removal of needless sources of danger of fire.

The safe construction of farm buildings and their maintenance in a safe condition should be encouraged by a reasonable classification of risks, worked out with special reference to particular localities. It is hardly fair to charge a man who builds carefully and guards his property against dangerous conditions the rate paid by one who builds carelessly and gives little heed to the subsequent safety of his property. Moreover unless the better risks are thus recognized there is danger that in spite of the lower average cost the best risks within the sphere of a local mutual company may be picked up by larger insurance businesses which do not classify.

Reasonable efforts should be made by every farmers' mutual company to spread information among its members not only as to safe building and the upkeep of property but also as to devices for checking any fire which may occur. The causes of fires should be more thoroughly studied and more carefully tabulated, and the reports on losses, which every member of a company should see, should group them in accordance with their causes. By such concrete examples members are best warned against such dangers as those inherent in defective flues, dilapidated and weather-beaten shingle roofs, the want of protection against lightning for buildings and fences, accumulated soot in chimneys, the careless disposal of ashes, accumulated rubbish in garrets or elsewhere, the use of the so-called parlour match and the careless use of kerosene, gasoline and other inflammable substances.

All that has been said is borne out by the reports presented at Springfield on 26 and 27 January 1915 to the eighteenth biennial meeting of the Illinois Association of Mutual Fire and Windstorm Insurance Companies, and the discussions at this meeting. The data taken from these reports show at the same time the progress made by the movement for mutual insurance among the farmers of Illinois, and the weak points of the organization of insurance in this State and to some extent in the whole of the United States.

§ 3. FARMERS' MUTUAL INSURANCE AGAINST FIRE IN ILLINOIS.

The Insurance Superintendent of the State of Illinois reported on 1 May 1915 that there were 232 mutual fire and windstorm insurance companies

in Illinois on 31 December 1914, having a total membership of about 175,000 and distributed as follows :

District Mutual Fire Insurance Companies	12
County " " " "	66
Township " " " "	142
District " Windstorm " "	8
County " " " "	4
<hr/>	
Total	232

It is seen that the companies are divided into the three classes of district, county and township companies. District companies are those whose territories are not limited by their charters to a certain county or a number of political or congressional townships. County companies were formerly those whose territory was limited to a single county but by an Act which came into force on 1 July 1909 they were allowed to include contiguous territory. The territory of township companies is limited by their charters to a certain number of political or congressional townships not exceeding twenty-five.

The following table summarizes the activity of the mutual fire insurance companies in 1913 and 1914 :

	1913	1914
Number of companies	220	220
Risks written during the year	\$ 72,382,676	\$ 69,224,486.
Assessments collected during the year	678,171	507,347
Total income from all sources.	775,857	723,700
Losses paid.	560,598	544,184
All other expenditure	197,826	189,802
Total expenditure	758,424	735,046
Cash assets	454,409	428,682
Liabilities	86,730	113,903
Risks in force at end of year	301,068,365	315,549,673
Assessment rate on each \$100 at risk	0.22	0.19
Losses paid on each \$100 at risk.	0.18	0.22
Number of risks written	37,633	35,267
Number of risks in force on 31 December	164,606	163,248

precautions and inspection. One mutual fire insurance company in Illinois classified the causes of the fires for which it paid indemnities as follows:

Railway engine	1	Bonfires	3
Furnace	1	Children playing with matches	5
Spontaneous combustion	1	Sparks on roof	12
Deliberate incendiarism	2	Kerosene and gasoline	12
Farm engine	2	Defective flues	23
Smoking	2	<i>Unknown</i>	24
Tramps	2	Lightning	100
Parlour match	3		

Thus in this particular case 16 per cent. of the fires had unknown causes. The necessity of ascertaining the causes of fires in order to take the needed preventive measures is evident.

The government of Illinois has not neglected fire prevention but formed in 1911 the Fire Marshal's Department which is divided into three sections. The section of publicity and education conducts public meetings at which the question of fire prevention is discussed and the people instructed as to their personal responsibility. The section of investigation investigates the causes of fires which appear suspicious in order that prosecutions for fraud and arson may be conducted. The section of inspection educates the people to protect their property. In June 1914 more fires caused by lightning were reported to the department than ever before in one month, namely 120 fires which caused a total loss of \$ 202,637. In the same month the total number of fires reported was 975 and they caused a total loss of \$ 957,014. Thus lightning was responsible for 12 per cent. of the fires and 21 per cent. of the loss. The great majority of the fires occurred in rural districts and the bulk of the losses was borne by the farmers.

The co-operation of the mutual companies would be most valuable, and since the interests of farmers are directly at stake it may be hoped that the campaign undertaken in its favour will meet with good results.

The experience of commercial companies has convinced the farmers' mutual fire insurance companies of the need for a standard fire insurance policy. Mr. E. W. Monnier spoke at the meeting on this subject as follows: "We have in the State of Illinois 220 mutual fire insurance companies and 12 mutual windstorm companies and perhaps as many forms of policy and different by-laws. That such conditions exist and that mutual insurance companies are successful under such conditions can only be accounted for from the fact that mutual insurance conducted under most any condition cannot fail to save money when we compare the actual rate of loss in the State with the rate charged by old line companies, the actual rate charged by old line companies being almost or quite double the actual cost of insurance. Conservatively speaking 40 per cent. is saved by the members of mutual companies as compared with the cost of purchasing old line insurance. Can we not do even better than this? To me it seems an easy matter to increase the saving from 40 per cent. to at least 60 per cent. but I do not

believe the result will be attained unless it be by co-operation and to attain this a standard policy should be adopted by all mutual fire and windstorm insurance companies...' Comparatively few mutual companies classify risks... I have encouraged for several years a lower rate of premium — but without success as yet — in the company that I represent on property that is properly protected by lightning rods... ”

The diversity which obtains in policies was illustrated during a discussion on the insurance of town property by farmers' companies. The old prejudice against insuring town and village property on the same plane as farm property is fast disappearing. In towns there are better and more quickly attainable facilities for fighting fires. Detached town dwellings are liable to be less heavily insured than improved and completely stocked farms. Such a farm is so valuable that insurance on it is easily written above the legal limit. That town property is not so readily destroyed as farm property is proved by the fact that some old line companies charge the higher rate for farm property.

The mutual companies follow individual principles in the matter. One insures town buildings which are separated from others by as much as eighty feet. In the five years ending 31 December 1914 its losses on town property were almost negligible, being only \$75. The representative of another company stated at the meeting that his experience of twenty years had taught him that small villages gave better risks than farms, but he objected to insurance in large towns. Another company insures village property separated by 100 feet from other buildings, and yet another village property so separated by 25 feet. One company at first insured only houses situated 100 feet from other buildings but has reduced this interval successively to 50, 30 and finally 15 feet. Similarly some companies insure motor-cars and farm machinery while others refuse to do so. One company insures motor-cars as farm machinery for two thirds of their value in the first year, one fourth less in the second year, one fourth less in the third year, and one fourth of the original insurance in the fourth and fifth years. Another company insures them at a value of not more than \$ 400 and pays two thirds of the appraised value if the machine is destroyed. Yet another insures them for two thirds of their value in the first year and 20 per cent. less in the second.

The necessity of providing a standard insurance policy, to replace the present diverse collection, is therefore evident and will gradually be recognized by the rural population.

Facilities for insurance are defective, and this fact together with the tendency of mutual companies to assume too great risks may have formidable consequences. There is therefore a demand for such a modification of the law as will allow the farmers' mutual fire insurance companies to share their surplus of risks.

This tendency to unification and co-operation among the mutual companies cannot fail to be to them a new and powerful factor of progress.

Part III: Credit

RUSSIA.

THE ACTIVITY OF THE STATE LAND BANK FOR THE NOBILITY IN 1915.

OFFICIAL SOURCES :

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- V. MORATCHEVSKY : Сельско-хозяйственный кредитъ въ Россіи (*Agricultural Credit in Russia*) Petrograd, 1910.

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- ЗАК : Крестьянскіи Поземельный Банкъ (*The Bank of the Agriculturists*) Moscow, 1911.

The State Land Bank of the Nobility has recently published a report for 1915. From this it appears that the year was characterized by a diminution of the bank's mortgage business. This business had gained a really notable ascendancy in the beginning of the twentieth century but diminished under the reaction from the influence of the war.

§ I. MORTGAGE BUSINESS.

The number of loans made on mortgages by the Bank of the Nobility in 1913, the time when the rise of which we have spoken reached its highest point, was 1425.

If this figure be compared with the number of mortgage loans made by the bank in 1915, namely 470, a serious retrogression in mortgage business will be observed. This was, as the report states, a result of the war, which influenced the whole of this year. It also depended to some extent on the ordinance of the Committee of Finances of 23 July 1914 which limits mortgage business.

The following table may give a more precise idea of the general development in recent years of this bank's mortgage business:

TABLE I. -- *Mortgage Business of the Bank of the Nobility from 1911 to 1915 (in roubles).*

Year	Number of loans	Area mortgaged — deciatines (1)	Estimated value of mortgaged properties		Sums lent	
			total roubles (2)	by deciatine roubles	total roubles	by deciatine roubles
1911	1355	1,101,685	152,166,685	138	88,842,600	81
1912	1486	1,105,873	190,358,777	159	109,314,100	92
1913	1425	1,536,873	253,726,195	165	146,082,000	95
1914	1292	1,123,808	197,590,208	176	114,420,400	102
1915	470	496,901	71,553,744	144	41,827,300	84

This table shows that far fewer loans were made in 1915 than in 1914, and fewer by still more than during the years before the war. That which however chiefly characterizes 1915 is the sudden interruption in the constant rise of the average estimated value of the deciatine. The fall of its average value is seen to be more remarkable if it be compared to the *special* estimated average value which continued to rise even in 1915. Thus in 1911 this was 105 roubles a deciatine, in 1912 it was 125 roubles, 159 roubles in 1913 and 160 roubles in 1915. As the *normal* estimate is based on the average cost of land in a locality, and the *special* estimate on a special and detailed survey of the properties concerned, the different courses of the *normal* and the *special* estimates are an index to the different influence which the economic crisis caused by the war has had on farms in general, which in their large majority belong to the peasants, and on the property of the hereditary nobility. The war has deprived the peasants of a large number of labourers whom it has been impossible to replace. Hence has arisen the diminution in the average estimated value of lands, an important percentage of which it has been impossible to cultivate or to cultivate adequately. The needed labour on the lands of the nobility was however partly supplied by prisoners of war and in some provinces by the forced labour of peasants.

During 1915 the increase in the *special* estimated value was however slight in comparison with its increase in preceding years, and this fact and

(1) 1 deciatine = 2.698 acres.

(2) 1 rouble = 2.1333s. at par.

the diminution in the *normal* average estimated value are explained by a very considerably lessened buying and selling of lands as a consequence of the war. The figure representing the purchase of land by peasants, who are the great majority of the purchasers, was less than a third of such figure for the preceding year. The development of the mortgage credit easily obtained from the Agriculturists' Bank much stimulated the purchase and sale of lands. The peasants, seeking to satisfy their "land hunger", caused prices to rise to unprecedented heights, yet further raised artificially — conditions which have been experienced in other European countries. The war caused these purchases and sales to diminish and thus caused also a fall in the price of land.

Of the 470 loans made by the Bank of the Nobility in 1915, 131 of the total sum of 3,864,200 roubles were secured by first mortgages on a total area of 71,502 deciatines of land previously unburdened in relation to the bank. The remainder, namely 339 loans of a total sum of 37,963,000 roubles were granted on renewed or complementary mortgages on 425,399 deciatines of land already mortgaged to the bank.

The following table gives a more exact idea of the indebtedness of the lands mortgaged to the bank :

TABLE II. — *Indebtedness of the Lands mortgaged to the Bank from 1906 to 1915.*

Years	In relation to the total number of mortgaged properties		In relation to the total mortgaged area	
	Properties unmortgaged %	Properties already mortgaged %	Unmortgaged area %	Area already mortgaged %
1906 . . .	32	68	39	61
1907 . . .	22	78	8	92
1908 . . .	25	75	12	88
1909 . . .	20	80	12	88
1910 . . .	24	76	13	82
1911 . . .	21	79	12	88
1912 . . .	24	76	17	83
1913 . . .	22	78	18	82
1914 . . .	23	77	27	73
1915 . . .	21	79	10	90

Since the Bank of Nobility first began business it has granted loans secured by mortgages on lands already largely mortgaged, so that it has reduced the terms on which the nobility can obtain land credit from banks and individuals. During the years of crisis the activity of the bank was limited to support of the properties economically weakest, that is to say already burdened with mortgages. This phenomenon is to be observed in 1907 when the percentage of the area already mortgaged was 92 and in advance of all precedents. The year 1915 comes very near to 1907, its

corresponding percentage being 90 and indicative of the seriousness of the crisis of 1915 for the landed property of the nobility.

The number of loans granted on the security of *normal* mortgages was only 114 or 24 per cent., while the other mortgages, 75 per cent. of the total number, were made after a *special* estimate. The total percentage of loans thus made during the year was 90.

The total sum for which the 470 persons, whose applications were accepted, applied as loans was 46,951,000 roubles. The bank could grant 41,827,000 roubles or 89 per cent. of the sum demanded. During the last six years the relation between the demand and the supply of loans was as follows :

TABLE III. — *Relation between the Demand and Supply of Loans.*

Years	Number of cases in which the whole sum demanded was lent	Sum lent per 100 roubles demanded — roubles —
1910	86	52
1911	92	51
1912	92	40
1913	84	46
1914	93	49
1915	89	57

It is apparent from this table that during these six years the whole sum demanded was lent in the largest percentage of cases. The bank sought to concentrate its aid on the neediest properties and was, in view of the crisis, obliged in many cases to lend the whole sum demanded.

The average area of the properties mortgaged to the bank on 1 January 1915 was 498 deciatines ; that of those mortgaged afresh in 1915 was 546 deciatines. The greater part, namely 61.9 per cent., of the latter belonged to the class of medium-sized farms (from 100 to 1000 deciatines of cultivable land) ; 23.6 per cent. were small farms of less than 100 deciatines ; and the remainder, namely 14.5 per cent., were large properties of more than 1,000 deciatines. Of the total area of the properties mortgaged in 1915, 60.8 per cent. belonged to the class of large properties (more than 1,000 deciatines of cultivable land) ; 36.8 per cent. to that of medium-sized properties and 2.4 per cent. to that of small properties. These data, if compared with those for the years from 1905 to 1915, confirm the statement that medium-sized properties have least power of economic resistance. Table IV shows that it is exactly in periods of crisis, as in the years from 1908 to 1910, or even more so in the period in which the consequences of a crisis are more felt, that the percentage of mortgaged properties of medium size rises ; for these properties are those which need most care and support in order that they may surmount a crisis.

TABLE IV. — *Mortgaged Properties according to Size.*

Year —	Relatively to number of mortgaged properties			Relatively to total area		
	Large properties %	Medium-sized properties %	Small properties %	Large properties %	Medium-sized properties %	Small properties %
1906 . .	27.2	55.8	17.0	84.3	15.0	0.7
1907 . .	28.2	51.3	20.5	77.9	21.1	1.0
1908 . .	16.2	62.0	21.8	59.7	38.1	2.0
1909 . .	18.4	63.6	18.0	65.8	32.7	1.5
1910 . .	13.2	60.4	26.4	68.1	29.8	2.1
1911 . .	16.1	56.0	27.4	71.6	26.4	2.0
1912 . .	15.5	56.8	27.3	71.7	26.6	1.7
1913 . .	18.9	58.1	23.0	77.9	20.9	1.2
1914 . .	16.7	57.1	26.2	77.0	21.7	1.3
1915 . .	14.5	61.9	23.6	60.8	36.8	2.4

An examination of transactions in each district shows that large districts in which the capitalist system of cultivating land is followed give most resistance to a crisis, and that resistance is comparatively weak where the large properties are still in the stage of primitive cultivation.

In 1915 loans were secured by renewed mortgages on 399 properties having a total area of 425,339 deciatines and a value of 63,919,857 roubles. The total sum thus lent was 37,963,100 roubles, of which 23,825,600 roubles was the sum granted when the loan originated and was renewed, while the remaining 14,137,500 roubles or 60 per cent of the total sum lent was the sum of the complementary loans made at the time of renewal. Throughout the year only one privileged loan was granted to the Russian nobles to enable the purchase of properties in the provinces of West and South-West Poland. This loan was of 150,000 roubles and the land bought had an area of 2,000 deciatines. The following table will give a more exact idea of the development of renewals of mortgages from 1901 to 1915.

TABLE V. — *Renewals of Mortgages from 1901 to 1915.*

Year	Number of loans	Number of loans on renewed mortgages	Percentage of renewed loans %	Sums lent roubles	Percentage of sums lent on renewed mortgages %
1901 . . .	1950	804	46	26,549,500	62
1902 . . .	1841	975	53	64,512,400	67
1903 . . .	1549	858	55	66,523,700	73
1904 . . .	1259	722	57	52,950,100	75
1905 . . .	846	545	64	39,782,200	81
1906 . . .	625	378	60	32,788,200	73
1907 . . .	280	202	72	26,164,000	92
1908 . . .	518	326	63	26,549,500	84
1909 . . .	784	525	67	49,701,600	82
1910 . . .	1248	802	64	87,125,400	72
1911 . . .	1355	894	66	88,842,600	78
1912 . . .	1486	940	63	109,314,100	73
1913 . . .	1425	948	66	146,082,000	71
1914 . . .	1292	849	66	114,290,400	71
1915 . . .	407	339	72	418,273,000	91

As is seen from this table the percentage of the renewed mortgages is very high and the number of the loans made by the bank in the course of the last fifteen years is very low ; and the agrarian disorders brought grave loss to the property of the nobility only in 1907, the last year in which they occurred. In other words this table is proof of the crisis active in Russia in 1915, to get the better of which the bank had to help land already burdened with mortgages.

As for the definite results of the privileged mortgage business, represented by a sum equal to 75 per cent. of the value of the mortgaged lands, which aimed at enabling the nobles to buy lands in Poland, it did not reach too high a figure. From 1894, the date of the first transactions of this kind, the bank has thus facilitated the passage to the ownership of Russian nobles of 228 farms which previously belonged to Poles. Their total area was 533,024 deciatines and their total estimated value 32,316,921 roubles.

TABLE VI. — *Privileged Mortgage Transactions to enable the Purchase of Land in Poland.*

Area bought with the bank's aid from 1894 to 1915				In the hands of the purchasers after the transaction			
Number of farms	Area of land bought Deciatines	Estimated value Roubles	Amount of loan Roubles	Number of farms	Area of land bought Deciatines	Estimated value Roubles	Amount of loan Roubles
28	560,887	36,150,031	26,971,500	92	205,255	14,708,746	11,010,400

§ 2. SALE OF PROPERTIES.

Of the 41,827,300 roubles, which are the total sum of the loans granted by the Bank of the Nobility in 1915, a sum of 13,772,400 roubles was paid to the borrowers in the form of bank bonds. And as bank bonds of 1915 could be realized at 77.7 per cent. on an average, the sum really received by the owners of the mortgaged lands was about 10,700,000 roubles or approximately 25 per cent of the total sum granted by the bank. This fall in the current rate of bank bonds caused the proportion of the sum granted to that actually paid to borrowers to be less than it had been for six years. In the years from 1910 to 1915 the percentages formed by the sums paid were respectively, 38, 36, 37, 40, 39 and 26, and the percentages formed by the sums retained were therefore 62, 64, 63, 60, 61 and 74.

The remainder was represented by the renewed debt to the bank of 22,489,000 roubles, and the sums retained for the extinction of foreign mortgages or other purposes, which amounted to 5,565,900 roubles.

In the whole course of the bank's existence mortgages to various mortgage credit banks have been redeemed up to the amount of 1,095,700 roubles.

The following table gives a more exact idea of the bank's business from 1886 to 1915.

TABLE VII. — *Redemption and Mortgage Renewal Business from 1886 to 1915.*

Bank	Redemptions & renewals in terms of thousands of roubles							Total
	1886-1890	1891-1895	1896-1900	1900-1905	1906-1910	1911-1915	1915	
Bank of the Nobility	4,100	73,800	150,300	156,800	109,800	240,400	22,500	698,600
Special office of that bank .	15,900	15,800	51,300	2,400	400	1,200	100	86,809
Other mortgage credit banks	110,600	52,400	80,500	31,300	9,400	30,100	200	310,300
Total . . .	130,600	142,000	282,100	190,500	119,600	271,700	22,800	1,095,700

The sums intended for amortization, paid voluntarily and in advance to the bank by borrowers in 1915, reached the sum of 3,521,855 roubles. These payments emancipated from all burden of mortgage 629 properties having a total area of 106,045 deciatines, of which 62,917 remained the property of persons belonging to the hereditary nobility, while 46,128 deciatines were ceded to persons outside the nobility for the whole time for which they should remain mortgaged to the Bank of the Nobility.

The total sum paid in 1915 comprised 1,822,439 roubles paid by the nobles and 1,599,416 roubles paid by persons not belonging to the nobility.

A comparison of data for previous years with those of 1915 gives the following table, which makes clear the large diminution of redemptions in 1915.

TABLE VIII. — *Voluntary Redemptions from 1910 to 1915.*

Year	Redemption		Percentage of debts redeemed		Percentage of mortgaged land emancipated	
	Area freed from mortgages — deciatines	Sums intended for redemption — roubles	Sums paid by the nobility — %	Sums paid by others than nobles — %	Lands belonging to nobles — %	Lands belonging to others than nobles — %
1910.	239,144	7,228,170	0.7	6.1	1.1	5.6
1911.	401,529	11,386,067	0.1	8.6	1.2	12.9
1912.	232,917	6,716,872	0.8	5.4	0.9	6.7
1913.	247,334	7,236,954	0.9	5.3	1.2	7.3
1914.	148,334	5,179,433	0.7	3.8	0.8	1.7
1915.	97,043	1,616,066	0.3	1.3	0.5	1.7

This table shows one fact which is not without interest, namely that the most important redemptions are made by persons who do not belong to the nobility.

The total number of properties mortgaged to the bank which changed ownership during 1915 was 1544. Their total area was 691,983 deciatines and they were burdened with a total mortgage debt of 29,443,300 roubles which changed ownership with them.

These properties were distributed as follows among the classes of society :

TABLE IX. — *Sale in 1915 of Properties mortgaged to the Bank of the Nobility.*

Purchasers	Number of alienated properties	Area — deciatines	Mortgage debt burdening alienated properties — roubles
1. Hereditary nobility . . .	373	227,620	15,062,800
2. Institutions (largely the Bank of Agriculturists) . .	31	7,802	719,200
3. Peasants	951	88,455	6,116,100
4. Middle class	35	4,288	270,800
5. Traders	39	291,970	4,156,600
6. Various others	115	71,848	3,117,800
Total	1,544	691,983	29,443,300

The data as to the alienation of properties mortgaged to the bank during the fifteen last years are also of notable interest. The alienations were as follows :

TABLE X. — *Sale from 1901 to 1915 of Lands mortgaged to the Bank.*

Purchasers	Area of lands sold			Total deciatines
	1901-1905 deciatines	1906-1910 deciatines	1911-1915 deciatines	
Institutions (the Bank of the Agri- culturists)	16,735	2,045,197	117,058	2,178,990
Peasants	477,096	1,866,164	1,168,402	3,511,662
Middle class	89,585	72,861	78,902	241,348
Traders	434,329	159,474	162,894	756,697
Various others . . .	471,728	336,657	472,782	1,281,167
Total	1,489,483	4,480,353	2,000,028	7,969,864

The large extent of land which in these fifteen years became the property of persons outside the nobility, namely 7,969,864 deciatines, confirms the statements in "Material for Statistics as to the Transmission of Lands in Russia." The fact is therefore that nobles lose land and peasants come to possess it. Most of the land bought by the credit institution is resold on privileged terms to small landless cultivators; and if the 2,178,999 deciatines bought by these institutions be added to the 3,511,622 sold directly to the peasants, the enormous total is reached of 5,691,621 deciatines which have passed from the hereditary nobility to small cultivators in the space of only fifteen years. 71.6 per cent. of these lands were sold to persons outside the nobility. If we examine the sale of mortgaged lands during the same fifteen years we find that the nobility constitute a large percentage of the purchasers, which is to say that a large although a diminishing percentage of the lands sold remain in the possession of the nobility. In the first quinquennial period, that lasting from 1901 to 1905, 63.2 per cent. of the total number of purchasers of lands mortgaged to the bank belonged to the nobility and only 14.8 per cent. to the peasantry. In the second quinquennial period, 1906 to 1910, the nobles constituted 29.6 per cent. and the peasants 61.2 per cent of the purchasers. From 1911 to 1915 the nobles constituted 46.1 per cent and the peasants 31.2 per cent. of the purchasers, which is to say that the nobles had regained a predominance. But if the figures for this last period be examined from year to year a marked rise in the percentage of peasant purchasers is discovered in the first year and a fall of 32.3 per cent. in 1915. Not only does a large extent of mortgaged lands pass to persons outside the nobility and especially to the peasants, but this extent tends to increase while the purchasing power of the hereditary nobility diminishes. At the same time a certain extent of land passes to traders, that is to say the capitalist middle class. This merely confirms the perspicuous remarks of Leroy-Beaulieu in his work on Russia: "The Russian nobility, no longer protected against others and themselves by the impossibility of selling to persons of a class not sheltered by the system of succession, are exposed to slow expropriation in favour of the

middle class and the peasants, who every year become possessed at their expense of a larger share of the soil. ”

On 1 January 1915 the total sum of arrears due to the bank by borrowers was 26,024,192 roubles. During 1915 the bank should have received as current mortgage revenue 43,167,391 roubles, plus 729,218 roubles in special revenues, or a total sum of 43,896,610 roubles. It recovered however only 39,131,810 roubles. At the end of 1915 the total sum of arrears was 31,082,105 roubles. This very large sum is the best index to the crisis of which we have already spoken.

Besides the sum of debts contracted on mortgages, which was 853,973,206 roubles, and that of arrears which was 31,082,155 roubles, borrowers were also indebted to the bank on 31 December 1915 for 133,193 roubles not bearing interest, 1,167,525 roubles which constituted *special* debts, and 1,563,627 roubles of deferred interest. Moreover by the law of 26 April 1906 the Bank of the Agriculturists was the debtor of the Bank of the Nobility to the extent of 166,437,668 roubles.

The total number of mortgaged properties, the sale of which by public auction was decreed in 1915 because legal charges had not been paid for more than a year, was 7,364 or 26 per cent.

The following table gives a more exact idea of the number of properties of which the sale by public auction was decreed :

TABLE XI. — *Properties of which the Sale by Public Auction was decreed from 1901 to 1915.*

Year —	On 1 May		On 1 November		In whole year — Properties of which the sale by auction was decreed %
	Number of properties of which the sale by auction was decreed	Number of properties to be sold by auction in relation to total number of mortgaged properties %	Number of properties of which the sale by auction was decreed	Number of properties to be sold by auction in relation to total number of mortgaged properties %	
1901 . . .	2,284	11	2,598	13	24
1902 . . .	2,401	11	2,533	12	23
1903 . . .	2,680	12	2,515	11	23
1904 . . .	2,632	11	2,983	13	24
1905 . . .	2,975	12	2,999	12	24
1906 . . .	3,815	15	4,226	17	32
1907 . . .	4,359	17	4,309	17	34
1908 . . .	4,359	17	4,141	16	33
1909 . . .	4,072	16	3,739	15	31
1910 . . .	3,486	14	3,057	12	26
1911 . . .	2,611	10	2,516	10	20
1912 . . .	2,576	10	2,710	10	20
1913 . . .	2,625	10	2,827	10	20
1914 . . .	3,080	11	2,736	10	21
1915 . . .	2,521	12	3,843	14	26

This table shows once more that 1915 was a year of crisis; but it is interesting to note that, in spite of what can be deduced from the number of properties of which the sale by auction was decreed, the economic depression of this year did not reach the gravity of the crisis of 1906-1908.

This table also shows that the position of the mortgaged properties is far from brilliant. In 7,320 out of the 7,364 cases of which we have spoken the auction could be revoked, either because the charges were paid at the last moment (4,055 cases), or because the term for payment was prolonged, or because the bank gave other facilities to the tardy (3,265 cases). In other words the auction could be revoked in 3,265 cases, thanks to various facilities "which had a beneficent character". Only 44 properties were actually put up for auction, and of these 37 were sold while five remained the bank's property. It is interesting here to note that, according to one of the bank's reports, "the credit of the sold properties had been exploited by the proprietors up to its final limit; their sale was not due to influences of the moment but was the inevitable consequence of the absolute impotence of these properties to continue to enjoy credit."

The total number of properties which have thus passed to the bank became 120, of which 102 are situated in the Caucasus.

§ 3. THE BANK'S FUNDS.

In the beginning of 1915 the funds of the Bank of the Nobility were as follows:

1) A capital formed by various issues of bonds of the total value of 948,700,700 roubles.

2) A capital of 74,942,097 roubles constituted by bonds issued in 1889 and not repaid.

3) A reserve capital of 12,583,618 roubles.

During the year bonds for 19,337,700 roubles were issued. In all 8,807,300 roubles were repaid. At the end of the year the bank's bonds reached the total amount of 960,231,100 roubles, distributed as follows:

Bonds	3.5 %	. . . . .	389,445,000 roubles
"	4 %	. . . . .	145,202,100 "
"	4.5 %	. . . . .	239,948,700 "
"	5 %	. . . . .	149,705,300 "
"	5 %	in lots	35,930,000 "
Total . . .			960,231,100 "

During 1915 the capital formed by 1889 bonds in lots did not change (74,942,097 roubles).

In 1915 the reserve capital was increased by 3,452,635 roubles and thus the bank's reserve fund reached on 31 December the sum of 15,986,253 roubles.

Besides this capital the Bank of the Nobility disposed at the end of 1915 of real estate of the total value of 1,311,800 roubles, plus other and various assets amounting to 17,318,586 roubles, and also of a special commemorative capital of ten million roubles.

To sum up: during 1915 the Bank of the Nobility notably reduced those of its transactions on which the crisis due to the war had an unfavourable influence.

There was an important diminution in the bank's loans, a notable diminution in its emission of bonds (89,948,800 roubles in 1913, 70,138,500 roubles in 1914 and 19,337,700 roubles in 1915); a fall in the current value of bonds (90.5 per cent. of their nominal value in 1913, 81 to 90 per cent. in 1914, and 75.2 to 81.625 per cent. in 1915); an important decrease in amortization (12,490,703 roubles in 1913, 10,156,811 roubles in 1914 and 3,552,577 roubles in 1915); and a decrease in the extent of land mortgaged (this increased by 163,546 deciatines in 1914 and decreased by 78,330 deciatines in 1915). On the other hand there was a very notable increase in the amount of unpaid interest.

It follows on the preceding data that the bank's mortgage business tends to diminish, and that 1915 was marked by too sudden a movement in accordance with this general tendency.

It also follows that the percentage of renewed mortgages tends constantly to increase, and this is important. In the mass of the business it is these renewals and the complementary mortgages which prevail. This is because in the large majority of cases loans to the nobility served not to improve their farms but to meet expenses of another kind. Thus with all the facilities granted mortgages have on the whole aggravated the condition of properties. They marked very often the first stage towards liquidation, towards the passage of a property to the ownership of persons outside the hereditary nobility.

NOTICES RELATING TO CREDIT IN VARIOUS COUNTRIES.

GERMANY.

ALTROCK (Walther V). *Kur und Neumarkisches Ritterschaftliches Kreditinstitut und neues Brandenburgisches Kreditinstitut. Veröffentlichungen des Königl. Preussischen Lands-Oekonomie-Collegium (The Institutions of Land Credit for the Fiefs of Kurmark and Neumark and the New Credit Institute of Brandenburg. Publications of the Royal Prussian College of Agrarian Economy)* Pamphlet 17. Berlin 1915.

In this book are set forth the origin and development of two special mortgage institutions of Brandenburg and the results obtained by the action of each.

Of them that known as the *Kur- und Neumarkisches Ritterschaftliches Kreditinstitut* was formed on 15 June 1777. As its name indicates it is one of the special financial institutions the operations of which affect feudal landed property, such property securing the mortgage deeds they issue, which are insured by the collective guarantee of all those who compose these institutes.

This particular establishment is distinguished among the numerous German financial institutions because its mortgage deeds are guaranteed only by the group of proprietors who are its members and own the mortgaged properties in question, and not by all the local nobility, as in Silesia and Pomerania, nor by all the proprietors of fiefs, as in Prussia.

According to the by-laws of 1777-1784 the following may belong to this institution :

a) All nobles whose property in land is worth more than 6,000 thalers (1) ;

b) All landowning commoners whose rural property is worth more than 20,000 thalers.

The activity of the institution is limited to the territory of Brandenburg as this was defined in 1777 ; that is to say to the districts of Stendal, Salzwedel, Gardelegen and Osterburg in Saxony, Schevelbein, Dramburg, Pyritz, Saatzig, Regenwald and Randord in Pomerania, and to the single district of Grünberg in Silesia. The districts annexed to Brandenburg after 1777 are excluded, those namely of Sternberg, Niederlawitz and Füterbog-Luckenwald.

The annual statistics for 1890 supply, as shown by the following table, the number of landed properties authorized to belong to the mortgage institute :

(1) 1 thaler = 2s. 11 $\frac{1}{2}$ d. at par.

Provinces	Number of Fiefs	Other Properties	Number of Properties
Brandenburg	1,213	173	1,386
Saxony, Pomerania and Silesia	252	27	279
Total	1,465	200	1,665

It will be useful to give here some statistical data as to the business of the institute from 1875 to 1913, taking every period of five years :

	Number of Mortgaged Properties	Year	Number of Mortgaged Properties
1875	651	1900	1,000
1880	777	1905	955
1885	949	1910	900
1890	1,008	1913	881
1895	1,029		

This table shows that the number of mortgaged properties increased steadily from 1875 to 1895 but decreased steadily from 1895 to 1913.

As to the total debt secured by mortgages the statistics show that this grew steadily from 1875 to 1900, and then diminished saving for some oscillations. The fact appears from the following figures :

Year	Total Debt secured by Mortgages Marks (r)	Year	Total Debt secured by Mortgages. Marks.
1875 . . .	89,097,732	1900	194,928,550
1880 . . .	120,703,410	1905	192,291,160
1885 . . .	152,551,580	1910	182,361,730
1890 . . .	180,618,200	1913	188,725,929
1895 . . .	192,303,100		

The average amount of a debt secured by a mortgage is shown by the following table to have increased continually from 1875 to 1913 :

Year	Average Amount of a Debt secured by a Mortgage Marks.	Year	Average Amount of a Debt secured by a Mortgage Marks.
1875	136,835	1900	194,929
1880	155,347	1905	201,352
1885	162,289	1910	202,624
1890	179,185	1913	214,218
1895	185,912		

The mortgage deeds bear interest at various rates — 3, $3\frac{1}{2}$ and 4 per cent. The rates in 1913 were as follows :

1 mark = about 11 $\frac{3}{4}$ d at par.

Mortgage Deeds. Marks.	Rate of interest.
66,951,200	3 per cent.
108,859,030	3 ½ per cent.
12,915,690	4 per cent.
188,725,920	

Mortgage deeds at 4 ½ per cent. were in circulation until 1880 when they were converted into deeds at 4 per cent.

An autonomous department of this institute, which was formed in 1873 and is known as the *Kur und Neumärkische Ritterschaftlich Darlehenskasse*, acts — as its name indicates — as the establishment's lending fund and transacts all relevant business.

* * *

The second institution of which we here have to speak, the *Neues Brandenburgisches Kreditinstitut*, was formed on 30 August 1869. Its promoters aimed at securing the advantages of credit for commoner landowners, as much as or even more than for the nobility, thus supplying the gap left by the first institution we have noticed.

According to the rules of 1911 the institution admits all landed proprietors not members of the *Kur-und Neumarkisches Ritterschaftliches Kreditinstitut* who own more than five hectares (1) of land.

Its activity extends over all the present territory of Brandenburg and also over the districts which belonged to Brandenburg until 1869 and were then separated from it (Osterburg, Stendal and Gardelegen in Saxony, Schevelbein, Dranburg, Saatzig and Regenwald in Pomerania, and Grünberg in Silesia).

The number of commoner landowners belonging to this institute is, according to the statistical data of 1911, 83,125 — that is 69,476 in the whole territory of Brandenburg, and 13,649 in Saxony, Pomerania and Silesia.

The following table gives some other noteworthy statistical data — as to the number of properties mortgaged and as to the total debt secured by mortgages from 1875 to 1912.

Year.	Number of Mortgaged Properties.	Debt secured by Mortgages. Marks.
1875	22	739,950
1880	93	3,694,600
1885	1,377	30,144,800
1890	4,195	74,274,300
1895	6,649	105,672,900
1900	9,007	130,972,350
1905	9,931	141,729,150
1910	10,375	142,972,800
1912	10,444	146,202,400

(1) 1 hectare = 2.47 acres.

The figures of this table show that both the number of mortgaged properties and the sum of the mortgage debt increased continuously from 1875 to 1912.

On the other hand the average amount of a debt secured by a mortgage diminished continuously in the same period, in contrast to the phenomenon noticed in the case of the first institution with which we dealt. The fact is clearly shown by the following table :

Year.	Average Amount of a Debt secured by a Mortgage. Marks.	Year.	Average Amount of a Debt secured by a Mortgage. Marks.
1875	33,634	1900	14,541
1880	39,727	1905	14,272
1885	21,892	1910	13,820
1890	17,705	1912	13,999
1895	15,893		

The rate of interest on mortgage titles is 3, $3\frac{1}{2}$ or 4 per cent., as is shown by the following figures which refer to 1912 :

Mortgage Titles. Marks.	Rate of interest.
26,090,300.	3 per cent.
116,008,850	$3\frac{1}{2}$ per cent.
4,103,250.	4 per cent.

Until 1875 mortgage titles at 4, $4\frac{1}{2}$ and 5 per cent. were current. Those at 5 per cent. were converted in 1880, those at $4\frac{1}{2}$ per cent. in 1885, and finally those at 4 per cent. in 1895. From 1895 to 1911 only titles at 3 and $3\frac{1}{2}$ per cent. were in circulation, but in 1912 titles at 4 per cent. were again issued.

UNITED STATES.

THOMPSON (C. W.) : FACTORS AFFECTING INTEREST RATES AND OTHER CHARGES ON SHORT TIME FARM LOANS, pp. 12, pls. 2. *U. S. Dept. Agr. Bul.* 409 (1916).

Among the factors discussed are the natural conditions affecting agriculture, the distance of farms from financial centres, the character of the borrowers, the methods and character of the farming, and the characteristics of loans and the relation of the farmer to the lending agency.

Part IV: Agricultural Economy in General

GREAT BRITAIN.

THE SCOTTISH LAND COURT IN 1915. (1)

OFFICIAL SOURCE:

REPORT BY THE SCOTTISH LAND COURT as to their Proceedings under the Small Landholders (Scotland) Acts 1886 to 1911, 1 and 2 Geo. V. Cap. 49, for the year from 1st January to 31st December 1915.

§ 1. SCOTTISH SYSTEMS OF LAND TENURE.

The systems of land tenure in Scotland may be classified under four main headings:

a) *The crofter tenure.* — A typical crofter's holding consists of a small extent of arable land on which are a cottage and other buildings, provided by the crofter himself or one of his predecessors, and of a right of common in mountain and heath grazing lands. Crofter holdings are found in the Northern and Western Highlands and Islands, and mainly in the so-called "crofting counties" which are Argyll, Caithness, Inverness, Orkney, Ross and Cromarty, Shetland and Sutherland. These counties extend over 14,000 square miles or nearly half the total area of Scotland, but they included in 1912 only 15 per cent. of the cultivated land of the country. Their larger part is untilled moorland.

In 1912 the average area of land attached to a holding in the crofting counties was 24 acres. But in some districts, especially in the island of Lewis, this average was not nearly reached.

Before the Crofters' Holdings Act of 1886 and succeeding legislation a crofter held his land only from year to year. The landlord had unrestricted power at each year's end either to evict him or to raise his rent. The crofter who improved his holding was therefore first in doubt as to whether he would be able enjoy the effect of his improvements, and secondly in fear that their most immediate effect would be the increase of his rent.

(1) Cf. in our issue for February 1914, p. 103, « Small Holdings in Scotland and the Effects of Recent Legislation regarding them », and in our issue for September 1915, p. 85 « Proposals for Land Reform in Scotland ».

The nineteenth century saw wholesale evictions of crofters by landlords, to provide land for large sheepfarms and to provide deer-forests. A resultant agrarian crisis caused the Crofters' Holdings Act of 1886 and the whole question of agrarian conditions in Scotland has since been raised.

b) *The small tenant's tenure.* — The holders of land classified by the Small Landholders' Act of 1911 as "statutory tenants" are distinguished from the crofters in that their landlords have paid for the whole or the greater part of their buildings and in that they do not enjoy rights of common. By far the greater number of Scottish small holdings outside the crofting counties are under this form of tenure. Like the crofts they were at one time tending to disappear; for from the eighteenth century onwards they were merged by their landlords into large farms, both arable and pastoral, or sacrificed in order to make grouse moors and deer forests.

Tenants of small holdings of both types in Scotland usually practice some industry other than farming. In the north they are fishermen; they or rather their womenfolk make tweed from their wool, and — especially in Shetland — knit it. In the Orkneys and the Hebrides they burn kelp. In the south they often follow a trade and those of them who are near large towns are sometimes market-gardeners.

c) *The large tenant's tenure.* — This form of tenure, found chiefly in South and East Scotland, approximates to that general in England. The landlord's estate is divided into large farms which he lets to farmers on lease. The peculiarities which distinguish these farms from the analogous English farms are outside the scope of this article.

d) *The tenure of freehold large farmers.* — The "bonnet lairds" of Scotland, who owned and farmed the hundred or couple of hundred acres on which stood their house, were still numerous in the eighteenth century; but the fortunes built up after the Union, and the ambition of fortunate Scotsmen to become landholders on the English scale, were against them. Very many of their holdings are now leasehold farms on the estates of large proprietors.

§ 2. CAUSES OF AGRARIAN REFORM.

The agrarian reforms which have been attempted in Scotland during the last thirty years have had various causes. There were first the grievances of the crofters and other smallholders — their insecurity of tenure and the disproportionate rents they sometimes had to pay — which eventually produced a public scandal and had the Act of 1886 as their immediate outcome. Secondly there was the fact that Scotland suffered from underfarming. This was due in part to the general circumstance that tenants at one and the same time were entitled to no compensation for their improvements and had no security of tenure. What large farmer or smallholder would sink capital in land from which he might be evicted at the expiry of his lease or the end of the year, unless he at least knew that he could then claim some compensation for his unexhausted capital? Other causes for underfarming

were the lack of capital from which both tenants and landlords suffered ; and the lowered price of grain after the repeal of the corn laws which made arable land less profitable than pastureland. This is to leave out of account the almost ridiculously large rents which tenants have for many years been more and more willing to pay for shootings in Scotland during the autumn, and which have placed a premium on under-cultivation.

A third circumstance which has made Scotland a field for agrarian experiments is political. The rate of emigration has increased alarmingly since the middle of last century, and the increase has been accentuated during the last decade, in which the contrary phenomenon has been produced in England and Ireland. Emigrants are drawn from no particular district and from no particular class of the agricultural population but from all alike. Between 1871 and 1911 the agricultural population declined by 22 per cent. ; and between 1909 and 1911 the number of emigrants rose from 33,368 to 61,328. It is true that Scotsmen have always been attracted to remote parts of the world and successful in them ; but it is probable that something might be done to arrest the tide of their emigration if further improvements were wrought in the agrarian conditions they enjoy at home.

§ 3. LEGISLATIVE REFORMS.

a) Reforms general in scope.

The conditions of Scottish farming leases in general have been mainly modified by the Agricultural Holdings (Scotland) Act of 1883, amended and completed in 1908. It was provided at the latter date that tenants, and in particular market gardeners, should have compensation for their improvements, and compensation for damage done by game and for "unreasonable disturbance" due to a landlord's refusal to renew their occupancy. They received moreover the right to bequeath the remainder of a lease and greater freedom as to their system of crops.

b) Reforms having particular reference to small holdings.

The grievances of crofters and small tenants were much alleviated by the Crofters' Holdings Act and the Small Landholders Act. The former, which was passed in 1886, applied only to crofts within the crofting counties rented at no more than £30 a year. It provided that a crofter might not be removed from his holding except for the breach of certain statutory regulations. It gave him the right to have his rent fixed fairly by a public authority ; and the right, if he gave up his holding or were removed from it, to receive compensation for his improvements and those effected by members of his family who had held it before him. The execution of the Act and the fixing of fair rents were entrusted to a specially constituted body, the Crofters' Commission.

Experience showed that there was a demand for more small holdings and that some of those in existence were too small for the needs of their tenants. In 1897 the Congested Districts' Board was established in Scotland

and its powers included that of forming new small holdings, either in co-operation with landlords or by buying land.

The Small Landholders Act was passed in 1911. This extended the provisions of the Crofters' Holdings Act so that they apply not only to the crofting counties but to all Scotland, and not only to crofters but also to all tenants of no more than 50 acres of land who pay a rent of no more than £50 a year.

In the matter of executive the Crofters' Commission and the Congested Districts' Board were both superseded, their powers in relation to small holdings passing to the Board of Agriculture for Scotland and the Scottish Land Court.

The Board of Agriculture has multifarious duties which include the preparation of schemes for the constitution of new holdings and the enlargement of existing holdings. The action involved is taken 1) by the landlord voluntarily, 2) by agreement between the landlord and the board, 3) under a compulsory order from the Scottish Land Court.

The duties of the Scottish Land Court are to accept or reject :

- 1) Applications from the board for such compulsory orders ;
- 2) Applications for the determining of the status of existing holdings and the fixing of fair rents ;
- 3) Applications relating to their other powers over existing holdings.

The court consists of five members appointed by the Crown on the recommendation of the Secretary for Scotland. One member must be able to speak Gaelic.

§ 4. THE SCOTTISH LAND COURT IN 1915.

a) *The Formation of New Small Holdings and the Enlargement of those already existing by order of the Court.*

In connection with this, a principal function of the Land Court, some sentences may be quoted from its report for 1915. " Under the Small Landholders Act the initiation of all schemes for the constitution of new small holdings and the enlargement of existing holdings devolves upon the Board of Agriculture for Scotland. All the preliminary negotiation is carried on between the board and the proprietor concerned. The Land Court have nothing whatever to do with these matters. They have no power to interfere with the selection of the land proposed to be taken, or to suggest that other land would be more suitable for the establishment of new holdings or for enlargements. Nor can they deal with the financial or economic aspects of any of the schemes submitted for their consideration. It is competent for the board and the proprietors to agree on land schemes without calling in the assistance of the Land Court at all. It is only when parties have failed to come to an agreement that the board makes application to the Land Court ".

The court issues its order if it decide, after due inquiry, to accept the board's application. Such order declares :

" 1) In respect of what land, if any, specified in the scheme, one or more holdings for new holders may respectively be constituted, and up to what date the power to constitute them otherwise than by agreement may be exercised ;

" 2) What is the fair rent for each new holding ;

" 3) What land, if any, specified in the scheme is to be excluded therefrom ; and

" 4) Whatever else may be necessary for the purpose of making the scheme effective, and of adjusting the rights of all parties interested in or affected by the scheme."

From the time the Act of 1911 come into force until the end of 1915 the court authorized altogether the constitution of 693 new holdings, including 22,946 acres of arable and 4,620 acres of pasture land, and 49,577 acres of common pasture. The total rents fixed for these holdings amount to £12,430 a year, or an average of nearly £18 each.

In 1915 schemes were authorized for the constitution of 197 new holdings ; but at the same time schemes for 32 new holdings, authorized both in this and in previous years, were abandoned, mainly in consequence of the serious liabilities incurred in connection with arbitrations. The new holdings in which tenants were actually registered in 1915, as the outcome of schemes authorized in this and other years, numbered 176. They were distributed as follows :

County	No. of Holdings	Area									Total Rent		
		Arable			Outrun			Common Pasture					
		Acres	Roods	Poles	Acres	Roods	Poles	Acres	Roods	Poles	£	s	d
Argyll.	22	2,831	1	11	843	3	24	256	2	—	495	9	0
Caithness	3	92	3	15	50	—	11	—	—	—	54	19	0
Dumfries	9	300	3	23	60	2	2	—	—	—	315	0	0
Haddington	29	582	2	31	—	—	—	—	—	—	1,098	10	0
Inverness	79	2,342	3	8	—	—	—	18,266	1	16	589	8	0
Kirkcudbright	4	152	2	32	67	1	23	—	—	—	159	0	0
Lanark	2	256	—	33	—	—	—	—	—	—	80	0	0
Perth	14	654	2	35	92	—	20	—	—	—	580	10	0
Ross and Cromarty	2	123	3	6	—	—	—	—	—	—	40	0	0
Roxburgh	7	290	1	18	—	—	—	—	—	—	233	5	0
Sutherland	5	99	—	3	—	—	—	4,571	—	—	57	4	0
Total	176	7,727	1	15	1,114	—	—	23,093	3	16	3,703	5	1

It will be seen that the largest number of new holdings were in the crofting counties. Of those in Argyll seven were on the island of Mull, and all the 256 acres of common pasture mentioned in the table were appurtenant

to these and therefore also on the island. To the largest Mull holding 12 acres of arable land pertained, to the others 5, 4, 3 or less. The fifteen new holdings on the Argyllshire mainland were more important, their arable land varying from 34 to 680 acres in extent.

Of the Invernesshire new holdings 75, their arable land varying in area from 16 to 100 acres, were formed on the island of South Uist. Each of the remaining four new holdings in this county, those namely which were on the mainland, had from 14 to 88 acres of arable land. A share of common pasture was assigned to each Invernesshire holding, none of them having other pasture land.

The far more valuable Perthshire land lay on the estates of Breadalbane and Inchmartine and was distributed in new holdings of approximately uniform size, the arable land of each being from 39 to 55 acres in area.

We should notice finally the 29 holdings formed on the estate of Elbank in the lowland county of Haddington, probably the most fertile district in Scotland. These fall roughly into three classes, those consisting approximately of 5, 10 and 20 to 30 acres of arable land. One exceptional holding has 49 acres. Neither common nor other pasture attaches to any of them. Their proximity to Edinburgh and some less towns renders them suitable places for intensive agriculture. It will be noticed that they are far more highly rented than any of the other new holdings.

As regards the enlargement of existing holdings the Land Court effected this between 1911 and 1916 in the case of 348 holdings, to which were added altogether 2,838 acres of arable land, 536 acres of pasture land and 27,172 acres of common pasture.

Schemes were authorized in 1915 for the enlargement of 61 holdings, all of which lay in the crofting counties where the evil of holdings economically too small exists as it does not elsewhere in Scotland. The following table gives details as to the enlargements thus authorized :

County	Number of Enlarge-ments	Extent									Total Rent		
		Arable or Old Arable			Pasture			Common Pasture					
		Acres	Roods	Poles	Acres	Roods	Poles	Acres	Roods	Poles	£	s	d
Argyll	1	3	2	27	123	2	37	—	—	—	10	0	0
Caithness	6	91	3	9	—	—	—	—	—	—	39	13	0
Inverness	21	311	2	12	17	32	—	7,621	—	—	65	5	0
Orkney	11	109	3	9	—	—	—	793	—	—	40	9	6
Ross and Cromarty .	22	92	1	9	—	—	—	2,474	—	—	53	2	0
Total . . .	61	609	—	26	140	3	37	10,888	—	—	208	9	6

Twenty-one schemes for the enlargement of holdings in Argyll, Inverness and Ross and Cromarty, authorized in 1915 and previous years, were

withdrawn in 1915; and land was actually assigned to enlarge only 12 holdings, one in Caithness and the others in Argyll.

The activity of the Land Court in enlarging existing holdings may fairly be summed up as modifying the too great subdivision of land in the crofting counties.

b) *Registration of New Holdings and of Enlargements of Holdings formed by Agreement.*

It is a function of the Land Court to register the tenants selected by a landlord for the new holdings he forms, on land which has previously been otherwise occupied. Six such new holdings were registered in 1915, one in Argyllshire, the others in the south west and outside the crofting counties :

County	Number of Holdings	Arable			Outrun		
		Acres	Roods	Poles	Acres	Roods	Poles
Argyll	1	38	3	4	49	—	16
Ayr	2	31	—	29	—	—	—
Wigtown	3	126	3	2	—	—	—
	6	196	2	35	49	—	—

The Act of 1911 prohibits a landlord from reletting a small holding otherwise than as such, except with the consent of the Board of Agriculture. If the landlord be unwilling to pay the compensation for improvements due to an outgoing tenant it is usual for him to find a new tenant who will pay the outgoing tenant the value of such improvements and who is registered by the Land Court as a landholder. Twenty-seven new tenants were so registered in 1915.

In thirteen cases the Land Court registered enlargements of existing holdings effected by landlords by agreement. These were as follows.

County	Number of Existing Holdings	Extent of Enlargement					
		Arable			Outrun		
		Acres	Roods	Poles	Acres	Roods	Poles
Aberdeen	1	12	—	—	—	—	—
Argyll	1	—	—	—	12	2	38
Caithness	4	8	2	—	6	1	37
Dumbarton	1	27	2	16	—	—	—
Inverness	2	1	3	—	3	1	4
Ross and Cromarty . . .	4	—	—	—	—	—	—
	13	49	3	16	22	1	39
							Acres
							3,000
							3,000

c) *Modification of Rents.*

The work of the Land Court in connection with rents falls under two heads, that concerned with the crofters, called landholders by the Act of 1911, and that concerned with the statutory small tenants.

The rents of the former had within the crofting counties been dealt with before 1911 by the Crofters' Commission, but rents fixed by the commission are liable to revision at the end of every seven years. The following table summarizes the Land Court's revision of rents in 1915, such revision being, as will be seen, favourable to the crofter rather than the landlord :

County	Number of Holdings	Old Rent	First Fair Rent	Reduction by Second Fair Rent	Fair Rent in 1915	Percentage of Reduction
		£ s d	£ s d	£ s d	£ s d	
Argyll	38	398 8 0	252 2 0	— — —	214 9 0	14.934
Caithness	170	1,794 0 5	1,274 2 0	201 13 0	1,003 8 0	21.246
Inverness	193	1,571 3 6	1,094 17 5	— — —	871 12 8	20.389
Ross and Cromarty	136	1,018 15 10	835 1 7	21 9 0	695 8 8	16.722
Shetland	49	305 8 0	222 6 8	— — —	186 12 0	16.071
Sutherland	8	27 17 11	32 16 0	— — —	26 6 0	19.817
	594	5,115 13 8	3,711 5 8	223 2 0	2,997 16 4	19.224

In 430 cases the Land Court fixed the fair rent to be paid for crofts with which the Crofters' Commission had not dealt, and in a considerable number of these cases arrears of rent were cancelled.

County	Number of Holdings	Old Rent	New Rent	Percentage of Decrease	Arrears		
					Total Amount	Amount ordered to be paid	Percentage cancelled
		£ s d	£ s d		£ s d	£ s d	
Aberdeen	21	339 2 8	209 1 0	38.357	—	—	—
Argyll	13	59 16 6	38 15 0	35.227	—	—	—
Bute	5	135 12 4	81 3 0	40.162	22 7 0	—	100
Caithness	152	1,385 13 7	1,096 15 3	20.850	685 18 0	347 10 6	49.392
Dumbarton	1	10 0 0	6 0 0	40.000	—	—	—
Elgin	6	41 0 0	27 5 0	33.536	51 8 6	20 0 0	61.108
Forfar	2	34 0 0	16 5 0	52.205	—	—	—
Inverness	14	94 19 3	79 1 0	16.756	80 7 3	33 19 0	57.753
Kincardine	1	29 12 0	12 10 0	57.770	22 16 3	—	100
Orkney	8	57 4 0	46 18 0	18.006	—	—	—
Perth	2	34 13 7	24 10 0	29.352	20 0 0	20 0 0	—
Ross and Cromarty	123	1,050 2 5	794 18 0	24.303	1,370 1 7	574 10 8	58.065
Shetland	82	423 5 8½	314 19 0	24.609	110 10 8	45 9 0	58.886
Total	430	3,695 2 0½	2,748 0 3	25.630	2,363 9 3	1,041 9 2	55.935

Thus total rents were reduced by more than a quarter, and more than half the aggregate sum of arrears was cancelled. The reductions of rent effected in the case of statutory small tenants were somewhat less drastic, existing conditions under this form of tenure being on the whole more equitable. The following table gives details as to the 243 holdings of statutory small tenants for which the Land Court fixed rents in 1915:

County	Number of Holdings	Old Rent			New Rent			Percentage of Deduction
		£	s	d	£	s	d	
Aberdeen	95	2,706	9	1	2,127	16	0	21.362
Argyll	3	26	0	0	19	18	0	23.461
Caithness	58	598	2	2	514	8	0	13.995
Dumbarton	1	35	0	0	30	0	0	14.285
Dumfries	2	43	0	0	33	10	0	22.093
Elgin	8	134	1	0	96	0	0	28.384
Fife	2	61	0	0	52	8	0	14.098
Inverness	4	76	17	0	62	1	0	19.258
Kincardine	8	237	10	7	178	15	0	24.746
Kirkcudbright	3	54	5	0	43	15	0	19.354
Lanark	4	280	10	0	234	0	0	16.577
Orkney	1	3	3	0	1	13	0	47.619
Perth	3	66	0	0	50	10	0	23.484
Renfrew	1	110	0	0	85	0	0	22.727
Ross and Cromarty . . .	27	643	12	11	530	13	8	17.550
Shetland	23	173	8	0	134	3	0	22.635
Total . . .	243	5,248	18	9	4,194	10	0	20.087

It should be noted that the Land Court has no power to cancel any arrears of rent in the case of statutory small tenants as it has in that of crofters. Even as regards the latter it may not deal with any arrears of a rent fixed as a fair rent either by itself or by the Crofters' Commission.

d) *Fixing Amount of Compensation due to outgoing tenants.*

In this connection there is another limitation of the competency of the Land Court. It can fix the amount of compensation due by a landlord for permanent improvements to the crofter who renounces his tenancy, but the sum thus due to a statutory small tenant in the same circumstances is fixed by an arbiter. In 1915 the court made 28 awards as to compensation to landholders :

County	Number of Landholders for whom Compensation was fixed	Amount claimed by Landholders			Amount awarded by Land Court		
		£	s	d	£	s	d
Aberdeen	3	498	5	0	124	10	0
Caithness	13	1,952	2	11	955	10	0
Inverness	3	343	16	9	123	0	0
Ross or Cromarty	(1) 8	802	9	10 (1)	490	0	0
Sutherland	1	65	0	0	27	0	0
Total	28	3,661	14	6	1,720	0	0

(1) In two cases the amounts claimed were not stated.

e) Grants of Leave to assign Holdings.

The Crofters' Act of 1886 forbade that a crofter should "execute any deed purporting to assign his tenancy". This created a hardship for crofters disabled by age or infirmity; and the Act of 1911 therefore ruled that a landholder whom illness, old age or infirmity had rendered unfit for work might apply to the Land Court for leave to assign his holding to a member of his family, or any person who would, failing nearer heirs, succeed him if he died intestate.

In 1914 the court granted leave to assign their holdings to sixty applicants in the crofting counties and none outside them.

f) Effects of the War.

The War affected the work of the Land Court in several ways. In the first place the numbers of its staff were considerably reduced.

In the second place the extraordinary response made by Scotland to the call for recruits for the army and the navy caused the absence of the large majority of the younger crofters and statutory small tenants. The case may be instanced of 224 acres of the farm of Aignish on the Lewis, on which are thirty-two holdings: from these 53 men went to join the colours. The natural result of volunteering on this scale was a great reduction in the number of applications which came before the Land Court. The numbers of the landlords and factors and of the law agents they employ — of all those with whom the Land Court usually does business — were proportionately reduced.

Another cause for a lessening of the court's business was the deflection of public money from agrarian objects to others more directly connected with the war. The reduction of parliamentary grants tended to reduce the activities of the Board of Agriculture in the matter of promoting schemes for the formation of new holdings and enlargement of existing holdings, and thus to reduce the number of these schemes which came before the Land Court.

JAPAN.

INTERIOR COLONIZATION AND THE PROGRESS OF AGRICULTURE IN KOREA.

OFFICIAL SOURCE :

ANNUAL REPORT ON REFORMS AND PROGRESS IN CHOSŌN (KOREA) 1914-1915, compiled by the Government-General of ChosŌn, Keijo (Seoul), July 1916.

The question of interior colonization in Korea has already been studied in this Review (1), and we will therefore here merely complete, with the help of the most recent official data, the information already given.

§ 1. AGRICULTURAL CREDIT.

Agriculture is the principal occupation of Korea and employs 80 per cent. of the population. Agricultural products have a total value of nearly 300,000,000 yen (2) and account for more than 80 per cent. of the total export trade.

The problem of agricultural credit is therefore urgent. Such credit is afforded *a*) by the Agricultural and Industrial Banks, *b*) by the People's Bank Associations, and *c*) by the Oriental Development Company.

The two former are organized under regulations dating, respectively, from 1906 and 1907. Owing to changes in the general position these regulations were modified in 1914.

a) Agricultural and Industrial Banks. — The new regulations recognize that these banks can discharge, as previously, the functions of ordinary banks, in addition to their main functions; but require them gradually to confine their activity to the latter, by extending banking facilities more and more to agricultural and industrial enterprises in that they furnish funds to these on easier terms. The banks are especially authorized to deal with temporary loans, exchange bills, documentary bills and warrants for products obtained in the peninsula. In order to acquire funds for these operations the banks are however authorized to make temporary loans and receive ordinary deposits, apart from the funds provided for long-term loans for agricultural and industrial undertakings. They are also authorized to enter into close connection with the banking department of the Oriental Development Company, so that the latter may furnish larger working funds to them. To a certain extent they can act as the company's agents, much as People's Bank Associations act as agents to themselves. The Agricultural and

(1) See Nos. 7, 8 and 9, year 1914, *Interior Colonization in Japan*.

(2) 1 yen = 2.0664 s at par.

Industrial Banks were formerly authorized to issue debentures to the amount of five times their paid-up capital; but the new regulations seek to safeguard their stability by imposing greater restrictions on the issue of debentures, and the maximum amount of these may not now exceed the amount of long-term loans repayable in annual instalments, and they must be cancelled as the loans are repaid.

Thanks to the new regulations and the gradual progress of industry and agriculture the Agricultural and Industrial Banks have been able to furnish much larger funds to the enterprises they can support. Their business in 1914 was however less good than in 1913 owing to the financial lull caused by the European war and the depression in the prices for rice. The number of branch offices of the six banks passed from 36 in 1913 to 37 in 1914, the amount of the paid-up capital from 1,467,945 yen to 1,469,890 yen, the amount of debentures issued from 2,990,000 yen to 2,910,000 yen, the reserve fund from 479,339 yen to 486,682 yen, the balance of the deposits from 4,599,926 yen to 4,718,821 yen, the balance of the loans from 6,280,105 yen to 8,028,558 yen, the balance of discounted bills from 5,303,517 yen to 3,526,090 yen and the profits from 215,649 yen to 125,409 yen.

The agricultural methods of the Korean people are rather elementary and loans for agricultural or industrial objects did not at first reach any considerable amount. Of late however, and especially since the annexation of Korea by Japan, an increasing demand has arisen for funds for irrigation, works of civil engineering and other agricultural enterprises; and loans made for these purposes have therefore reached a considerable sum, as is shown by the following table:

Year	Loans to be repaid by Annual Instalments		Loans to be repaid at Fixed Periods		Ordinary Loans	Bills Discounted	Balance over- drawn in Current Deposit for Commer- cial Purposes	Total
	Agricultural Purposes	Indus- trial Purposes	Agricultural Purposes	Indus- trial Purposes				
	yen	yen	yen	yen	yen	yen	yen	yen
1908	86,262	17,060	43,464	7,765	1,394,639	1,102,251	30,134	2,681,575
1910	392,728	556,495	92,137	46,882	1,740,839	3,457,870	57,773	6,344,724
1913	1,073,396	888,025	221,714	578,836	3,165,704	5,303,517	352,430	11,583,622
1914	1,660,508	636,788	1,192,955	392,932	3,627,149	3,526,090	518,226	11,554,648

The enormous increase in 1914 of agricultural loans, especially of those repayable at fixed periods, is remarkable.

b) *People's Bank Associations.* — These associations were first established in 1907 as auxiliary organs to the Agricultural and Industrial Bank. They numbered 227 at the end of 1914 as against 208 at the end of 1913, but their total membership was 60,322 at the former and 80,193 at the latter

date. The reduction followed on the elimination of undesirable members. At the end of 1914 the capital advanced by the government was 2,265,000 yen ; that contributed by members 694,300 yen ; the reserve funds amounted to 491,289 yen (396,331 yen at the end of 1913) ; the balance of deposits to 108,521 yen ; the balance of loans to 2,148,278 yen ; the profits to 43,433 yen (91,684 yen in 1913) ; the amount of joint purchases to 96,967 yen (89,917 yen in 1913) ; that of consignment sales to 563,532 yen (889,402 yen in 1913); and the number of warehouses lent to the government to 195.

A Japanese manager of each association is appointed and paid by the government.

The new regulations recognized the limited liability of the associations and imposed upon each member the obligation of strengthening the capital fund to the extent of ten yen a share ; and, in order to encourage thrift in members, they authorized the associations to receive their deposits. The membership, hitherto limited to Korean farmers, was opened to Japanese farmers.

c) *The Activity of the Oriental Development Company.* — This company engages under government protection in agricultural and industrial undertakings. It invites skilled farmers, selected by itself, to immigrate and supplies them with necessary funds ; and thus it participates in the development of the natural resources of the peninsula. The company's capital being 10,000,000 yen, State lands — which measured 10,037.8 cho (1) — were transferred to it in payment for 60,000 shares valued at 3,000,000 yen taken up by the government. These lands, added to those bought, reclaimed or otherwise acquired by the company, made its total landed property at the end of 1914 measure 70,143 cho — 46,642 cho of paddy land, 18,753 cho of upland, 2,264 cho of forests and 2,482 cho of other land. The rents of this property amounted to more than 1,600,000 yen in 1914.

Up to the end of 1914 the company brought 2,659 immigrant families into Korea and rented to them altogether 4,733 cho of cultivated land. The government granted 300,000 yen annually to the company for its engagement of Japanese immigrants.

A main branch of its activity is the supply of the funds needed for exploitation by settlers, farmers and others. In the fiscal year 1914 (1 April 1914 to 31 March 1915) the total amount lent to farmers and others was 7,570,000 yen, which was more by 1,360,000 yen than that lent in the previous year. Of the total loans 3,220,000 yen were lent for agricultural purposes, 1,540,000 yen for public enterprises, 2,300,000 yen for debentures issued by several Agricultural and Industrial Banks, and 500,000 yen for other purposes.

The following table shows the position of the company in 1913 and 1914 :

(1) 1 cho = 2.44950.

Year	Reserve Fund	Debentures Issued	Profits	Amount of Dividends	Percentage of Dividends
	yen	yen	yen	yen	
1913	428,400	19,350,000	1,391,400	690,000	7.0
1914	511,000	19,350,000	1,047,841	650,000	6.5

§ 2. GROWTH OF AGRICULTURAL PRODUCTION.

The organizing energy of Japan has given a strong impulse to the activity of Korea. The fact is proved by the figures having regard to foreign trade, which increased in amount from 39,207,031 yen (8,902,509 yen for exports and 30,304,522 yen for imports) in 1906 to 108,691,682 yen (exports 49,492,325 yen and imports 59,199,357 yen). If it be remembered that — as we have said — more than 80 per cent. of the foreign trade is in agricultural products, the increase in agricultural production is seen to have been considerable.

The activity of the Oriental Development Company, the wise organization of small credit, technical education, the formation of small farms, experimental stations and nurseries for mulberry and other trees, the formation of Water Utilization Associations (1), the holding of agricultural exhibitions — all these elements have contributed to the progress made. Much however remains to be done for at the end of 1914 only about 13 per cent. of the land of the peninsula was cultivated. Measures have therefore been taken to extend the cultivated area. Between 1907 and the end of 1914, 29,198 cho of State waste land were granted to individuals or corporate bodies.

The following table shows the progress made between 1910 and 1914 :

Product	1910	1914
Rice (1)	7,917,622 koku (2)	12,159,167 koku
Wheat and barley	3,548,441 »	6,001,839 »
Beans	2,473,679 »	3,229,170 »
Millet	2,646,890 »	3,212,464 »
Cotton	11,473,170 kin (3)	36,123,530 kin
Cocoons	13,931 koku	46,194 koku
Cattle	703,844 head	1,338,401 head

(1) In order to improve the quality of the exported rice, regulations issued in February 1915 provided for its inspection and subsequent classification.

(2) 1 koku = 0.6205 quarter.

(3) 1 kin = 1.32 lbs.

(1) There were at the end of 1914 nine of these associations, of which seven had up to that date spent more than 1,180,000 yen, while the area having a water supply had been increased by 10,407 cho.

The government has devoted particular attention to the protection of forests. Jurisdictional districts for forest protection have existed since 1912 and there were forty-five of them in the different Korean provinces at the end of 1914.

No less an effort has been made in the direction of afforestation. The nurseries formed by the central or provisional governments provided 3,573,837 seedlings of *quercus serrata*, pseudo acacia, red pine, poplar (*pyramidalis*) chestnut and other trees; and 14,570,000 of them, as well as 137 koku of seeds, in 1914.

Afforestation is also undertaken by private corporations or individuals. Thus the Oriental Development Company planted 2,860,000 trees in the spring of 1914.

Finally an annual Arbour Day has been instituted and is duly celebrated, especially in the schools.

The following table shows the progress of afforestation:

Means of Afforestation	1910		1915	
	Area afforested	Number of Trees planted	Area afforested	Number of Trees planted
By Central Government . .	531 cho	876,000	183 cho	1,460,000
By Local Governments . . .	—	—	251 "	1,329,000
By Public Schools	—	—	938 "	3,810,000
On Arbour Day	—	—	—	15,384,000
By Private Individuals and Corporations	404 "	1,947,000	18,686 "	39,399,000

Thus in 1910 an area of 1,035 cho was afforested with 2,823,000 trees and in 1915 an area of 20,058 cho with 61,382,000 trees. In the whole period 1910-1915 the afforested area was 69,761 cho and the number of trees planted 235,351,000.

NOTICES RELATING TO AGRICULTURAL ECONOMY IN GENERAL IN VARIOUS COUNTRIES.

AUSTRIA AND HUNGARY.

FEIFALIK (Dr. F.) [Regierungsrath der bosn. herz. Ländersverwaltung] Ein neuer aktueller Weg der Lösung der bosnischen Agrarfrage (*A New Way to solve the Agrarian Question in Bosnia*) Wiener Staatwiss., Studien II Band; 3 uf. Vienna and Leipzig, 1916.

In this book the author has aimed at contributing to the solution of an agrarian and economic problem in Bosnia, the problem namely of the *kmeti* which is important because it is connected with the development and future of agriculture in this province but which is thorny because multiple difficulties are in the way of its solution.

The name *kmeti* is given to the cultivators of the lands possessed by the *agas* who are the great proprietors of the country. These lands are burdened by a right of customary service, recognized by the law, in virtue of which a *kmet* can never be deprived of the land he renders fruitful by his labour, and is connected by certain obligations with the *aga* to whom the land belongs. There are thus in Bosnia and Herzegovina special jurisdictional relations between proprietors and cultivators of the land, and they date from a very ancient period. The regulation of these relations is no very easy task and has always preoccupied the Austrian and Hungarian administration. The realization of pertinent reforms which would solve the agrarian problem, with which the problem of the *kmeti* is intimately connected, has figured importantly ever since the early period of occupation in the general economic and agrarian programme which Austria and Hungary have proposed to carry out in the new territories.

Dr. Feifalik has understood the importance of the matter at stake and has wished not only to facilitate its investigation, by the opportune and practical observations which make his book useful and valuable, but also to render a practical service in that he advances a new solution of the agrarian problem, especially as it concerns Bosnia. In his three first chapters he attempts to show:

a) That the feudal relations which have long existed in Bosnia and Herzegovina between the *agas* and the *kmeti* represent an insurmountable obstacle to all improvement in agriculture, which has for this reason made no progress since the time of the Austrian and Hungarian occupation until to-day, in spite of all the ameliorative measures evolved and applied by the new government.

b) That all the essays of Austria and Hungary to improve agriculture in the two annexed provinces, including the last law of 1911 on the repurchase of lands, have had no results or hardly any, because they did

not in the first place provide for the regulation of the jurisdictional relations between the *agas* and the *kmeti*, that is between those who own the land and those who make it fructify by the labour of their hands.

This assertion of an undeniable fact gives the author a basis for his statement that the complex and difficult problem of the improvement of agriculture in Bosnia and Herzegovina can be solved in one way only, namely by seeking to reconcile the interests of the *agas* and the *kmeti*, by having recourse to more opportune and more practical reforms.

Dr. Feifalik observes that the rights which the *agas* and the *kmeti* respectively claim on the same holding constitute a species of *condominium* which is injurious not only to these two classes of citizens, whose interests are in consequence continually opposed, but also to the future of agriculture in the country.

The author thinks however that in order to untie these feudal bonds and dissolve the jurisdictional relations, which now unite the cultivators and owners of the soil in Bosnia and Herzegovina, the idea should be abandoned of granting to one or other of them the right to redemption from this servitude, which both, from the point of view of their opposing interests, consider particularly prejudicial to themselves. For this idea Dr. Feifalik proposes to substitute another and more practical plan which promises better results, that is the division of every holding between the owning *aga* and the cultivating *kmeti*. This division could not however be arbitrary : it would have to be effected under the protection of the law and in accordance with criteria for safeguarding, as equitably and exactly as possible, the interests of either party with due regard to their respective rights.

The term *ciflic* designates, when applied to land, holdings of which the *agas* are jurisdictionally recognized to be owners and the *kmeti* to be cultivators, that is holdings over which the two classes exercise their respective rights, a condition which is tantamount to the existence of a species of *condominium*.

By the law of 1911 the Austrian and Hungarian government proposed to solve the agrarian problem in Bosnia and Herzegovina by a definite rupture of the jurisdictional and feudal relations which had existed from time immemorial between the *kmeti* and the *agas*. But Dr. Feifalik thinks this measure inadequate to a really useful and practical solution of this important problem, and he proposes that the government should instead support a division of the landed property between the two classes of persons interested in it, the *agas* and the *kmeti*.

The author points out that the one difficulty which must be overcome before this proposal is applied if conflicts of interests are not to be provoked, that is if the respective rights of the *agas* and the *kmeti* are in no way to be injured, is the difficulty of finding what he calls the *key* to a just division of the land on the lines indicated, in other words a principle which will give a sure basis for determining, as exactly as possible, what part of a given area of *ciflic* land, taken as a unit, should be assigned to the owning *aga* and what part to the cultivating *kmeti*.

The author states that if we admit for the moment that such a key

can effectively be found the logical consequence is that the *aga* and the *kmeti* would willingly accept the proposed reform and immediately come to an agreement for the sharing of the lands in which they claim rights.

Basing his argument on this consideration, Dr. Feifalik goes on to explain the procedure to be adopted for the establishment of the key-principle of which we have spoken and which is of capital importance to the solution of the problem in question.

The better to define his ideas he supposes the particular case of a *ciflic* holding having an area of 60 *dunum* (1). He states that the various crops grown on land of this area can bring in a gross revenue of 600 crowns (2), from which however the tax of the tithe has to be deducted. The remaining revenue is divided, one third going to the *aga* and two thirds to the *kmet*. The gross value of the products are thus shared as follows:

Ciflic Holding of 60 dunum.

The tax of the tithe	60	crowns
To the <i>aga</i> ($\frac{1}{3}$)	180	»
To the <i>kmet</i> ($\frac{2}{3}$)	360	»
Total . . .	600	»

It should next be imagined that this holding of 60 *dunum* is not *ciflic* as was presumed when the preceding figures were established. Let the holding be supposed to be freely and absolutely owned by the *aga* who grants it to a *métayer*. The author believes that the revenue to be derived from it in such conditions, everything relevant to a contract of the sort being taken into consideration, is indicated by the following formula:

$$(1) \frac{600-60}{2} = 270 \text{ crowns.}$$

Take another hypothesis. Suppose that the holding in question, while the form of its tenure is still that of free proprietorship, has an area of only 40 *dunum* (3). The revenue to be derived by the *aga* is then represented as follows:

$$(2) \frac{400-40}{2} = 180 \text{ crowns.}$$

These formulae show that the revenue derived by the *aga* from *ciflic* land having an area of 60 *dunum* is equal to that of a holding of only 40 *dunum* which he holds in free ownership. The ratio which should obtain between an *aga's* share and the whole area of any *ciflic* holding subjected to the proposed division, is therefore expressed as follows:

$$40 : 60 = 2 : 3.$$

(1) 60 *dunum* = 136.90005 acres.

(2) 1 crown of gold = 10.08096 *d.* at par.

(3) 40 *dunum* = 91.2667 acres.

That is to say two thirds. It is therefore permissible to claim that the *aga* ought to be satisfied even if after the proposed division of his *ciflic* land not the whole two thirds of its area, to which he would have a right according to the preceding calculation, but a slightly less extent were assigned to him, say three fifths of the total area. The author states that the *aga* would be inclined to relinquish this small part of his rights in consideration of the special advantage he would derive from the division of his *ciflic* land. He would indeed be enabled by the division, which would make him a free proprietor, to emancipate himself from the numerous annoyances and difficulties which are often enough caused by the *kmeti* of Bosnia and Herzegovina.

To give an idea of them it is enough to say that a *kmet* who is ill disposed to his *aga* can wrong him in a very simple way, by neglecting, for instance, the ordinary tilth of a larger or smaller part of the *ciflic* holding and employing it as pastureland for the raising of live stock. The cause of the loss which the *aga* thereby incurs is the fact that the latter has the right to take one sixth of the crops of the land entrusted to his *kmet* but has no part whatever in the profits of land left as pasturage or in the profits of keeping live stock. And this is not the only method by which the *kmet* can cause annoyance. In such cases the law certainly gives the right to take out a penal action against the *kmet* but in practice this expedient is too little efficacious for the *aga* to count upon its success. It is clear therefore that the author is logically justified in prophesying that the *agas* will receive the new agrarian reform he proposes with favour.

Another of his statements is justified also, the statement that every *aga* ought to be inclined to agree to the assignment to himself in free proprietorship of only three fifths of the total area of his *ciflic* land, instead of the two thirds to which he would actually have a right when the aforesaid division of the holding was made.

We must add that an identical double prophecy can be made in the case of the *kmeti*. To prove this statement the author employs an argument like that used in the case of the *agas*.

We have already had occasion to note that the *kmet* has a right to two thirds of the value of the products of a *ciflic* holding, after the amount of the tithe has been subtracted from such value. The profits accruing to the *kmet* from a holding of 60 *dunum* are therefore expressed by the following formula :

$$(3) (600-60) \frac{2}{3} = 360 \text{ crowns.}$$

Let us now suppose that a holding of only 40 *dunum* is ceded to the *kmet* in full ownership. The profits he will derive from it are expressed by the following formula :

$$(4) (400-40) \times \frac{2}{3} = 360 \text{ crowns.}$$

In other words, it may be deduced from formulae (3) and (4) that when a given holding is divided two thirds of its total area will accrue to the *kmet*.

Therefore an *aga* will have, equally with his *kmet*, a right to two thirds of the *ciflic* holding on which both have claims. Having established this circumstance the author points out that the *kmet* might very well also, like the *aga*, content himself with three fifths of the holding instead of the two thirds which would fall to him in the manner described. The small loss he would thus suffer would be outweighed by a special advantage. For before the exemplified division of the *ciflic* holding of 60 *dunum* he would be obliged to bear the expense of cultivating land of that extent; whereas after such division he would, as has already been explained, have a free property of an area of only 40 *dunum* and the costs of his farming would be proportionately diminished.

After all that has been said it is easy to understand that the author has been able to establish, on the basis of an exact principle, the following formula which gives the desired *key* to a just division of *ciflic* lands between the *aga* and the *kmeti*

$$\frac{3}{5} + \frac{3}{5} = 1 \frac{1}{5} (1).$$

This formula signifies, translated into ordinary language: 1) that the area which either an *aga* or a *kmet* would have the right to hold in free proprietorship is represented by three fifths of the total area of a *ciflic* holding; 2) that this holding should therefore receive an addition equal to one fifth of its area.

The question therefore arises — Who should furnish at the time of the division of a *ciflic* holding this missing fifth which is necessary to equity? The author answers unhesitatingly that it is the part of the State to intervene and provide the needed territory. He affirms that such intervention is possible because the State possesses in Bosnia and Herzegovina large extents of land which now yield hardly any profit. Such are indeed the 571,635 hectares (2) which are used only for the pasturage of live stock and the other 212,700 hectares which are overgrown with woods and bushes. The State is therefore fully able to provide the 94,346 hectares which would, according to the author, allow the proposed agrarian reform to be applied without injury to any private interests.

The author adds that the reform should include the preservation of the emancipated properties from too great subdivision, especially those of them which would fall to *agas*. The better to attain this end the *agas* and the *kmeti* should be encouraged to accept this second part of the projected reform by the grant of an amount of land somewhat in excess of that to which they really would have right. Therefore the author proposes that

(1) It should be noted that the author in establishing this formula has not taken into account:

a) that the value of the products belonging to the *aga* is a net value while that accruing to the *kmet* is a gross value;

b) that in speaking of the division of the products between the *aga* and the *kmet* the reference is to the principal products of the soil whereas the secondary products (of the vegetable garden, orchard etc.) and the profits derived from stock raising accrue to the *kmet* only.

(2) 1 hectare = 2.47 acres.

the State should cede not only the 94,346 hectares already mentioned but double that area, namely 188,692 hectares, the value of which may be computed, according to the prices usually paid to the State by settlers acquiring land, as 2,075,612 crowns.

The author then proposes that the application of the projected reform should not be obligatory but that the *agas* and the *kmeti* should have full liberty to accept or reject it. It is however his opinion that both will receive it favourably, for the simple reason that the proposed division of lands will be useful to both. This result would, he says, be reached far more easily if the State declared itself ready to cede a part of its property to the *agas* and the *kmeti* on condition these were in their turn ready to accept the application of the agrarian reform in question at a given moment, that is to say before the special laws called *Baltalik* and *Mezzas*, which have reference to the cession of State lands to the communes, were applied.

This impulse given by the State would, Dr. Feifalik affirms, contribute to an unhesitating acceptance on the part of the *agas* and the *kmeti* of a reform which would be of general service. It would, as has already been said, be optional. But while Dr. Feifalik maintains the usefulness of leaving to the *agas* and the *kmeti* full liberty to accept or reject the proposed reform, he is of opinion that there are exceptional cases in which the State would have to compel the division of the lands on the lines indicated, even having recourse sometimes to measures of force.

These cases are the following :

1) When a minority among the *kmeti* depending on a single *aga* opposed their majority who wished to accept the aforesaid proposed agrarian reform. The author maintains that in this case the State should impose the aforesaid reform on all the dissenting *kmeti*, especially if the lands cultivated by the latter were so situated in relation to those cultivated by the *kmeti* favouring the reform that they would be an obstacle to its application. It is the author's opinion that in the case of an obstinate opposition on the part of these dissenting *kmeti* the State should compel them to migrate to other localities.

2) The second exceptional case would occur in the districts of Bosnia and Herzegovina within the war zone. The author advises that the State should reserve the right within the war zone to render the application of the agrarian reform obligatory where there seemed to be a need for it and also to have recourse to coercive measures where, for example, there was question of expropriation or other such action.

Proceeding to consider the territorial distribution of the State's landed property the author remarks that the State domain, although in general rich in land, is insufficient in the eight districts which border the Save. Where these districts are concerned he proposes to compel the *agas* to cede the lands they possess in exchange for others lying in regions where the landed property of the domain is more considerable or even excessive. Should the *agas* in question oppose this plan the author proposes simply that the law relative to the repurchase of lands should be applied to these districts.

Before concluding we must state that Dr. Feifalik's ideas and the reform he proposes, as resumed by us, refer especially to Bosnia. Since in Herzegovina the jurisdictional relations between *agas* and *kmets* are slightly different from what they are in Bosnia, the author has wished to make the former province the subject of a special study in which he hopes to present his conclusions regarding it.

AUSTRIA.

AGRAR-COMPASS. JAHR- UND ADRESSBUCH DER ÖSTERREICHISCHEN LANDWIRTSCHAFT (*Agrar-Compass, Year-book and Directory of Austrian Agriculture*) Published by Rudolf Hanel, Vienna, 1916, pp. 1788.

There were already books like this one in Austria concerned with industry and commerce. The present volume fills a gap and supplies a need much felt not only by agriculturists but also by all interested in business, and is a potent aid to the general economy of the country. For in spite of the great progress made by co-operation and the existence of other noteworthy institutions, Austria has lacked the means by which a complete idea of the market in a broad sense can be formed, and the connection between consumers and producers has had a casual rather than a systematic character. This has been largely due to the fact that agriculture has lacked the expedient which had long and successfully served industry. The editors of *Agrar Compass* have made it their aim to understand and explain agricultural production in all its branches from the point of view of its capacity to enter into the movement of commerce. The new directory deals especially with those agriculturists who bring onto the market a quantity of products considerable from the commercial point of view. The war prevented this collection of addresses from comprising those of the agriculturists of Galicia and Bukovina, in which countries ownership has undergone many and important changes and modifications.

The book gives the names and addresses of the owners of farms and forest holdings, and of their secondary establishments when these surpass an area fixed in accordance with the crops grown ; of the dairy farms — those producing milk and cheese and collective dairies — ; of agricultural unions for purchase, sale and stock-breeding and other co-operative societies and corporations ; of distilleries, mills, industries for working with wood, sugar refineries, factories for making preserves and substitutes for coffee, and tobacco industries.

Pages 1221 to 1268 are occupied by general statistics giving the data as to the agricultural, economic and forestal position in each State, that is with regard to agriculture, forestal economy, stock-breeding, the industries for alcoholic drinks, mills, and the treatment and preparation of wood, sugar, preserves, coffee substitutes, and tobacco.

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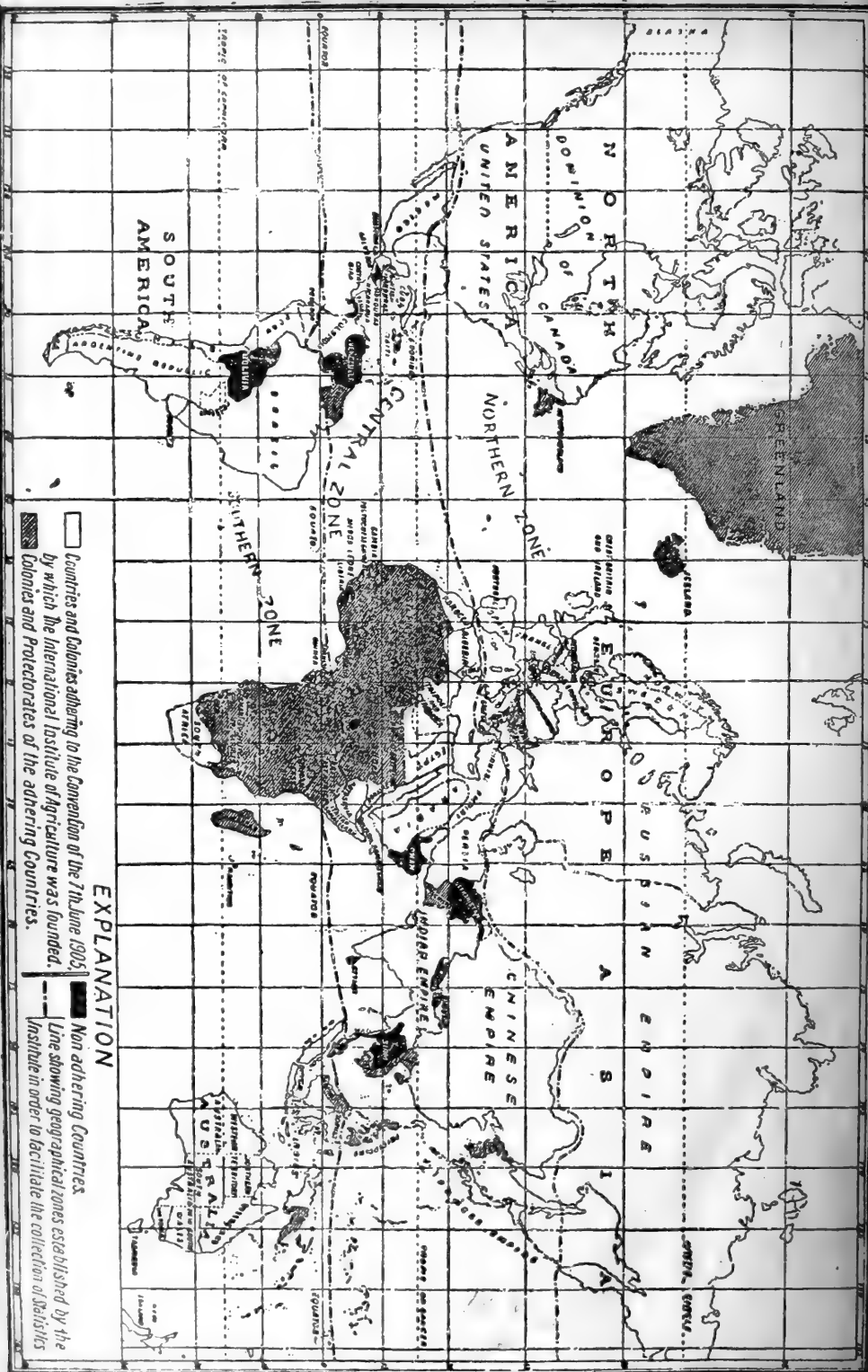
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